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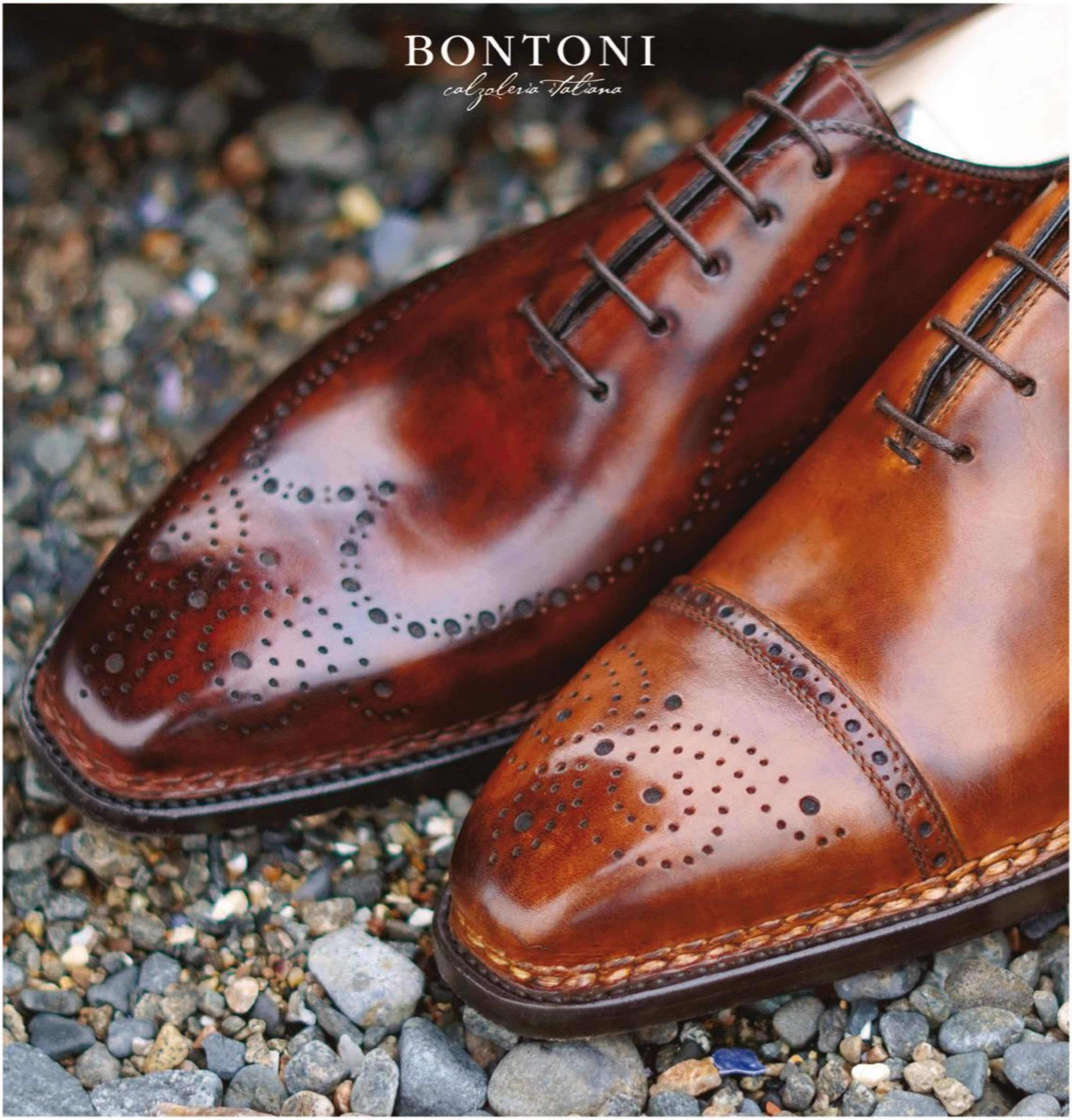
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JUNE 09, 2023 _ VOL.180 _ NO.17

Newsweek

FEATURES

16

Drive to Win

Forget merely surviving in the U.S. market. Formula 1 CEO Stefano Domenicali's goal is to capture the hearts, minds and wallets of America.

by PAUL RHODES

28

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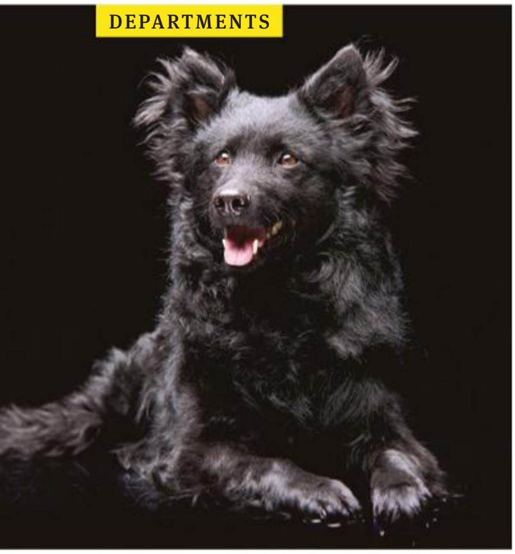
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DEPARTMENTS



▼ In Focus

06 **North Charleston, South Carolina**
Off to the Races

08 **Beijing**
No Limits Friendship

Binnish, Syria
Paying Tribute

New York City
Flower Power



▼ Periscope

10 **Technology**
How Artificial Intelligence Will Transform Our Lives

▼ Culture

52 **Uncharted**
Dogs From Afar

56 **Parting Shot**
Melissa McCarthy

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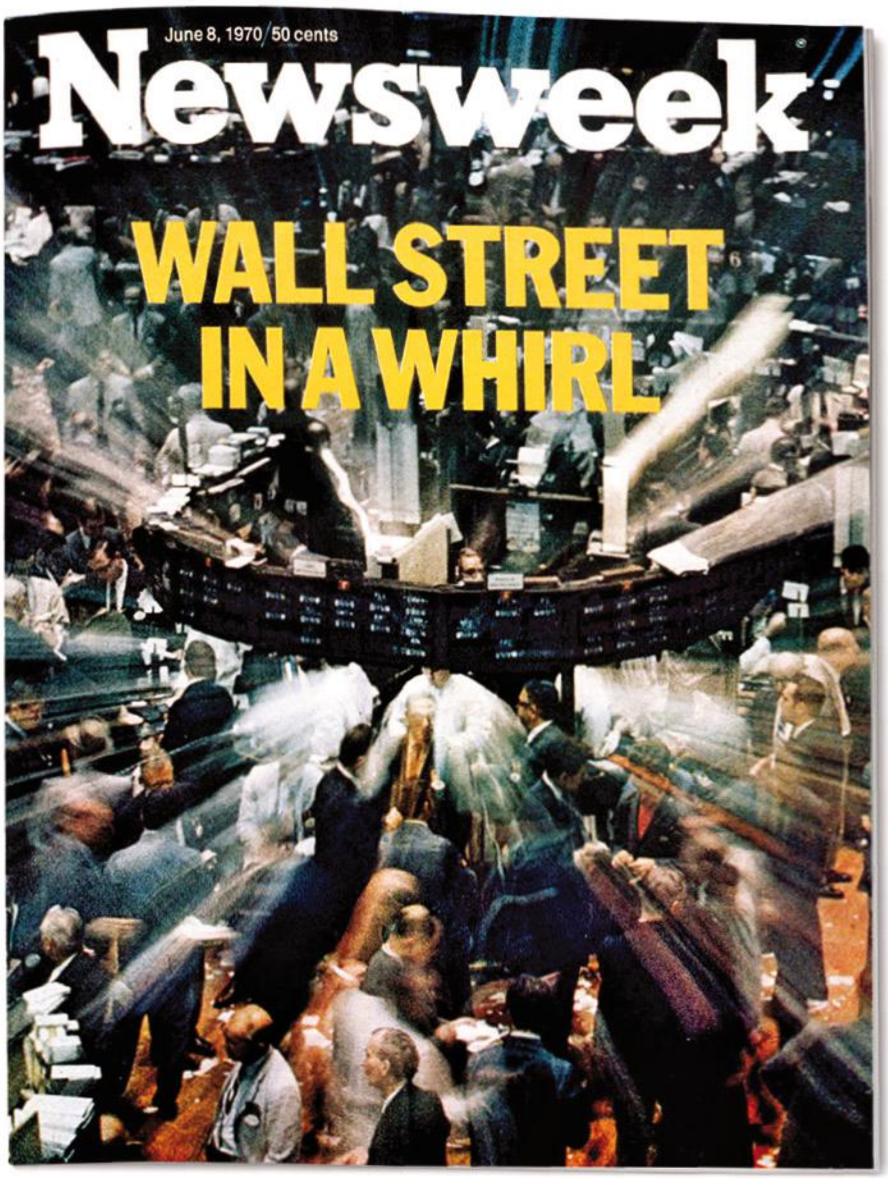
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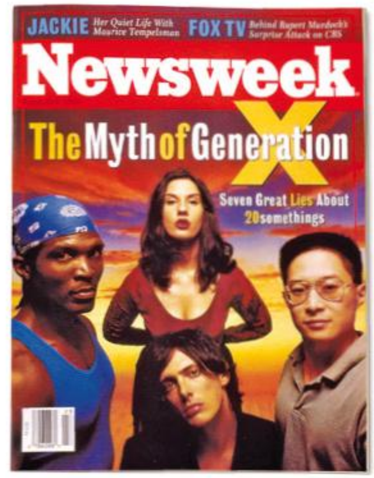
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The Archives

1970 "The long bear market that ushered in the [Richard] Nixon administration opened the week with steep, fresh losses," wrote *Newsweek* on the unstable market conditions that marked the decade. "But then, the most powerful three-day rally in memory surged through Wall Street, lifting prices by a flabbergasting eleven percent." While things have changed quite a bit since the era of Nixonomics, consensus is still elusive regarding what monetary and tax policies will effectively control the ebbs and flows of the economy to prevent inflation and recessions.





1994

"Boomers are bashing twentysomethings with startling relish these days. Generation X is just a bunch of whiners, right? They're all slackers," wrote *Newsweek*. The same age-old refrain resounds in the era of quiet quitting, a phenomenon that affects around 50 percent of the U.S. workforce, according to Gallup.



2001

"As soon as researchers identified the AIDS virus in 1984, the ultimate solution seemed obvious. Science would vanquish AIDS just as it had polio, measles and smallpox: by immunizing people," said *Newsweek*. Compared to the COVID vaccine—which took under a year to create—prospects of developing an HIV vaccine soon remain out of reach.

NEWSWEEK ARCHIVE (3)

GRAY MALIN





Bestselling author and photographer **GRAY MALIN**'s new collection of aerial beach photography, highlighting coastal locations from around the world

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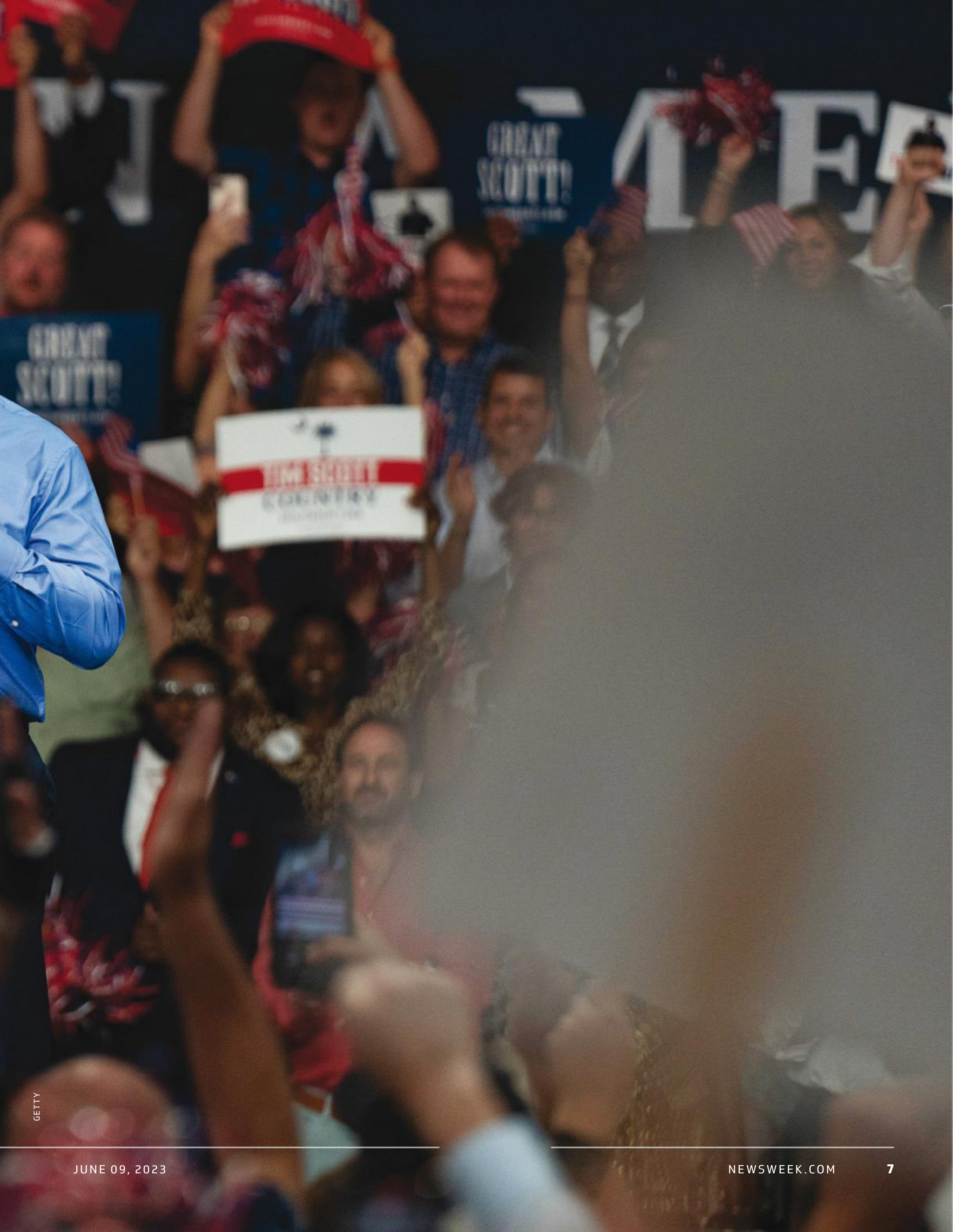


NORTH CHARLESTON, SOUTH CAROLINA

Off to the Races

Senator Tim Scott of South Carolina announces his run for the 2024 Republican presidential nomination at a campaign event on May 22. Two days later, Florida Governor Ron DeSantis also joined the growing list of candidates, including former President Donald Trump and South Carolina Governor Nikki Haley, who appointed Scott as senator. DeSantis made himself a national political figure for pushing back against progressive agendas and turning Florida, America's largest swing state, red.

ALLISON JOYCE



GETTY

BEIJING

No Limits Friendship

The China Honor Guard marches in formation during a welcoming ceremony for Russian Prime Minister Mikhail Mishustin on May 24. As Western nations put sanctions on Russia in response to the war in Ukraine, China has become the country's biggest buyer of oil and gas exports. During Mishustin's visit, officials from the two countries signed a new set of economic agreements.

▸ THOMAS PETER

BINNISH, SYRIA

Paying Tribute

Syrian artists paint a mural of Agence France-Presse journalist Arman Soldin on the remaining wall of a collapsed building on May 23. Tributes to Soldin—a Bosnian video coordinator killed on May 9 by a rocket attack outside Bakhmut while covering the conflict in Ukraine—came in from far afield. According to Reporters Without Borders, at least 10 media members have been killed reporting on the war.

▸ OMAR HAJ KADOUR

NEW YORK CITY

Flower Power

Ninety-four-year-old Japanese artist Yayoi Kusama's latest exhibition, one of her largest ever, is on display at the David Zwirner Gallery. The exhibit, titled "I Spend Each Day Embracing Flowers," is named for three massive flower sculptures, including this one, created in her signature bright, psychedelic style. Kusama has said that her designs stem from the vivid hallucinations she's had since she was a child.

▸ TIMOTHY A. CLARY

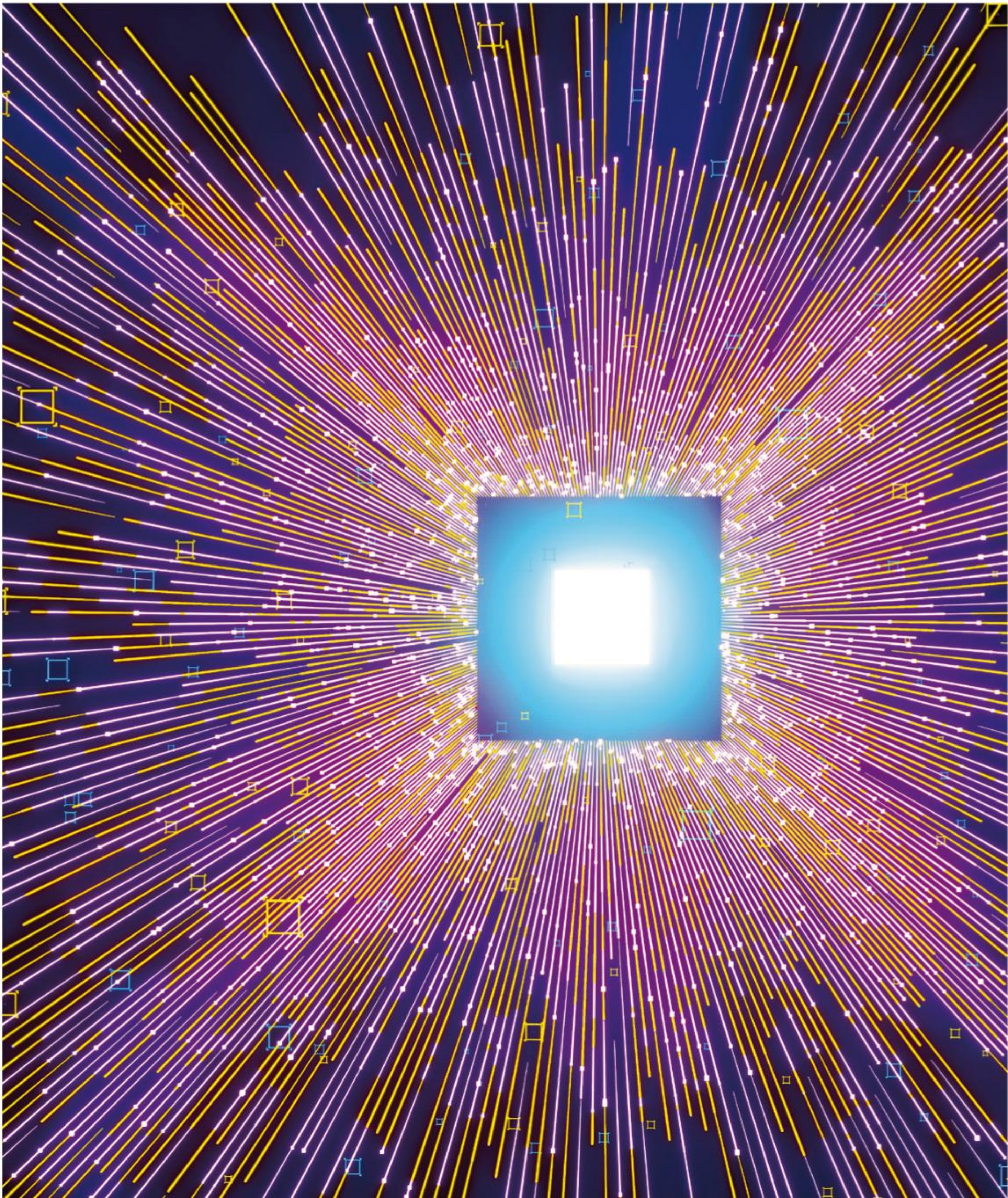






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TECHNOLOGY

How AI Will Transform Our Lives

It's impossible to know exactly what changes the technology will bring. We asked the experts anyway

by
DAVID H. FREEDMAN

THE EXPLOSION OF PROGRESS IN ARTIFICIAL intelligence in recent months has surprised even the scientists and engineers who specialize in applying AI to real-world tasks. "A few years ago I never would have imagined we'd advance this far this soon," says Zhe Jiang, a University of Florida researcher who studies industrial applications of AI.

The recent excitement—and concerns—over this technology were ignited when several major companies released stunningly capable new programs in swift succession, including OpenAI's ChatGPT, Microsoft's Bing and Google's Bard. These "large language models" are programmed to pore over trillions of words of text from the internet to learn how to produce very human-like text and images on their own in response to plain English questions and requests.

These and other AI tools are expected to have big consequences for the economy and spill over into virtually every sphere of life, from education to entertainment to health. People also will lose their jobs, while others become more productive.

"What AI can do may seem magical now, but soon it's going to seem commonplace," says Rowan Curran, an analyst at research firm Forrester who focuses on AI. "Just as we couldn't have imagined the impact that ridesharing apps like Uber would have on cities and transportation, we're not imagining all the ways that AI will change things."

Nobody can say exactly what changes AI will bring, but experts agree that they'll be big and far-reaching. In the coming years, AI tools are widely expected to change the way most people live and work.

Image by ANDRIY ONUFRIYENKO



Better Medical Care

In April, a study published in the journal *Nature* showed that an AI program was as good as or better than human experts at spotting heart problems in patient ultrasound images. That's just the latest in an ongoing stream of research that suggests AI is already skilled enough to match or exceed human doctors at catching cancers and other disorders by scanning images and tissue samples and combing through medical records.

AI is also good at transcribing and summarizing patient encounters and sifting through vast technical literature to root out drug interactions and other facts that could be critical to patient treatments. A new system from startup Hippocratic AI, designed to interact with patients, even boasts an empathetic bedside manner. It has outperformed other AI programs—and many human clinicians—on more than 100 certification exams, including nursing, dietetics and urology. These programs are only going to get better, and combined with their lower cost and an ongoing shortage of doctors, the future of medicine is looking very AI.

Some pharmaceutical companies are already relying heavily on AI to help find promising new drugs. For instance, PsychoGenics, a pharma research company specializing in drugs for psychiatric disorders, is improving on the inefficient, inexact and costly process of testing new psychiatric drugs on mice, which typically takes five years. By using AI instead of lab technicians to observe the effects of new drugs on mice, the company can test more drugs with greater accuracy at a tenth the cost and two years faster. (The results are always confirmed by human experts, the company says.)

Four drugs found via PsychoGenics' AI are now in clinical trials, including one promising schizophrenia drug entering a phase III trial this year. "There are limits to what a human can observe," says PsychoGenics CEO Emer Leahy. "AI is the only way we could have spotted the right patterns of behavior" in the lab mice.

A Helping Hand to Seniors

Eldercare robots have already stepped in to help some of the 56 million Americans over the age of 65, who face many health and wellness challenges. Ongoing breakthroughs in conversationally adept AI programs such as ChatGPT will soon make them become better companions.

The help is greatly needed. Each year, three million elderly people in the U.S. wind up in emergency rooms after a fall, according to the Centers for Disease Control and Prevention. Of those who sustain fractures, half don't live more than a year. The U.S. is also facing an "epidemic" of social isolation, the Surgeon General said in 2017, along with the high cost and short supply of eldercare workers. Families often cannot provide the help that's needed.

Eldercare robots have already taken up some of the slack, even without incorporating the recent AI advances. Robots already watch over seniors with electronic eyes, beam video alerts to family, fetch small items, answer questions and set up reminders. Some of them can already start conversations with seniors, prompting them for childhood and other personal recollections, and then reporting the results to family members.

Soon, however, the power of such devices to interact with people will improve enormously. Caregiving and

SENIORBOTS Eldercare robots will soon incorporate the AI behind ChatGPT. Below: The retirement home "Maisons de Famille" in Paris.



PHILIPPE LOPEZ/AFP/GETTY



JEAN-CHRISTOPHE VERHAEGEN/AFP/GETTY

FARMBOTS AI-powered machines already tend crops. Left: A robot pulls weeds during a demonstration of new technologies in France.

companion robots equipped with the latest AI can provide "contextual empathy," says Forrester's Curran. "They can tell the difference between a senior who's rummaging through a drawer, and one who's struggling to open a drawer," he explains.

To What Am I Speaking?

Robocalls have long been an annoyance, but the next time your phone rings you may not be able to tell if you're talking with a human or a machine. Telemarketing is something that AI will be especially good at, notes Robert Seamans, an associate professor at New York University's business school who studies AI's impact. When Seamans and colleagues analyzed which types of tasks AI programs are going to excel at over the next few years, telemarketing came out at the top. "That's a job that involves the one, very specific task of making sales, usually by reading from a script," he explains, making it an easy lift for AI.

Those in need of legal help may also soon depend on AI's ability to handle certain tasks. According to a March report from investment bank Goldman Sachs, AI will be capable of taking on nearly 45 percent of legal work in coming years. That's because much of what lawyers and paralegals do today involves poring through oceans of documents to search out specific information and summarize the results, as well as writing out standard contracts.

"AI can do these routine tasks quicker than lawyers," says Brandie Nonnecke, who co-directs the Center for Law and Technology as well as the AI Policy Hub at University of California, Berkeley. But, Nonnecke adds, AI "isn't ready to handle advanced legal activities, like identifying what's relevant to a case and what isn't, and overseeing legal strategies. It can't understand the issues at hand in complex cases."

An AI "can tell the difference between a senior who's rummaging through a drawer, and one who's struggling to open a drawer."

Some legal firms are using AI to provide guidance to their clients. California online legal services firm DoNotPay offers AI assistance that defendants can use to fight parking tickets and other minor legal violations without having to hire a lawyer. The company had even been planning to have its AI take the lead in a live court case by feeding the program's output in real time to a human lawyer who would read it out loud. But in January the company was forced to withdraw its plans under threats from state bar associations to disbar any lawyers who participated.

Soon, millions of office workers will be working alongside AI programs. Human resources departments are using AI to zip through thousands of online resumes in seconds in search of candidates with skills and experience that match job openings. A survey of 250 human resource managers found 92 percent of them intend to bring in more AI. Forrester found that AI cuts an average of 11 hours of human HR work a week.

Most administrative employees will soon find themselves sharing cubicles, metaphorically at least, with AI programs aimed at marketing, financial, customer-service and production applications, among others. Companies now employ AI to make on-the-fly decisions about ad placement, predict shifts in costs and sales and spot problems in manufacturing quality control. AI systems

at some companies are resolving customer service issues without human involvement, and online used-car site CarMax is using AI to analyze and summarize customer reviews, notes Seamans. "The program provides much better insights into what people think about when they buy a car," he says. As AI programs get better at communicating, they will essentially become coworkers sharing workloads and making suggestions.

Robot Workers

Robots are teaming up with blue-collar and other skilled workers. Many of the two million people in the U.S. who work behind the wheel of a car, truck or heavy-equipment vehicle are already sharing their seats with AI programs, whether it's self-driving cars or autonomous construction vehicles. John Deere promises to release self-driving tractors soon. Packages will be brought to your doorstep in the not-too-distant future by AI-powered drones or delivery robots, two technologies that Amazon have been piloting for several years.

Robots have long been a routine sight at factories, but forthcoming humanoid robots such as Tesla's Optimus and Sanctuary AI's Phoenix will work shoulder-to-shoulder with people as robo-cooks, robo-stockers and robo-gardeners. At Sam's Club, robots now clean floors and look for missing or misplaced items on shelves. Hospitals use robots to disinfect their rooms. Your next home might be built with AI-powered help, thanks to massive 3D printers that can construct parts of a home or small building layer by layer out of concrete.

AI-powered tools and machines have been working the fields alongside farmworkers, notes the University of Florida's Jiang, helping to speed every stage of the growing cycle and easing a longstanding skilled-labor shortage via smarter equipment that can be controlled by less-skilled workers. It may not be long before the surgeon that operates on your heart or knee is an autonomous robot. In May, Monogram Orthopaedics demonstrated a robot that performed knee surgery on a cadaver entirely under remote control.

"Directors who want a fast overnight rewrite for tomorrow's show may just hand it over to ChatGPT. That will make AI a direct threat to how writers are respected in Hollywood."

Writing and Coding

The Hollywood writers strike, which began on May 2, is mainly about pay, but a secondary issue is how much scriptwriting work AI should be allowed to take. Programs like Google's Bard and OpenAI's GPT-4 can easily crank out scripts that seem much like the work of a human, and they can do it to suit almost any style, setting or theme, for little or no cost, almost instantly. "We have a real issue on our hands," says Marc Guggenheim, a writer and producer who has been behind hit shows such as *Carnival Row* and *Arrow*. "It isn't necessarily one in the very short term, but maybe as soon as a year from now it will be."

AI cannot match the quality of human writers, says Guggenheim. "AI scripts tend to be bland and



BOTTOM: DAVID MCNEW/GETTY



TOTBOTS Above: A robotic toy in a cafe in Kawasaki, Japan, during the pandemic. Below left: AI is an issue for striking Hollywood writers.

uninteresting," he says. "It's improving quickly, but there will always be a human element, an X factor, that even the best AI won't be able to imitate." The bigger concern, he says, is that AI will take over some of the less-demanding writing jobs for which standards are lower, but which many writers depend on for a chunk of their income. That work includes rewrites, rough drafts, scripts for game and reality shows, and TV-show spinoff novels. "Directors who want a fast overnight rewrite for tomorrow's show may just hand it over to ChatGPT," he says. "That will make AI a direct threat to how writers are respected in Hollywood."

It may not be all bad for writers, however. In the near future, they might be able to write a script, feed it to an AI program and produce a finished TV show or even movie—no producer, director or actors needed. "AI can already produce pretty good videos based on written descriptions," says Guggenheim, referring to AI video generators such as those offered by Synthesia and other companies.

RIGHT: PHILIP FONG/AFP/GETTY



There's one line of work that AI may be ready to take over from humans: writing the code underlying apps, websites and other software. "Entry-level coding jobs, at least, can be replaced by ChatGPT," says Jiang. But that doesn't mean coders need to worry about being laid off, he adds. Because there's a perennial shortage of coders, he says, companies are far more likely to keep hiring them to oversee the AI tools, spelling out assignments and checking the resulting work. In one study an AI tool working alongside a human coder was able to speed up the coding process by 55 percent compared to a human working alone.

As AI tools get better at understanding non-technical directions, even people with little or no coding experience will be able to get a tool to produce a new mobile app, or a computer program that helps with business or professional tasks. "AI lowers the bar for more of us to become software developers," says Curran. Professional developers will keep their jobs, he predicts, but they'll end up focusing on more sophisticated software projects AI can't handle alone.

A Possible Upside

It's too soon to panic over AI's potential for stealing jobs, says Berkeley's Nonnecke. "We've been going through various technology revolutions since homo sapiens first walked upright," she says. "We'll adapt and evolve to this one, too. People will find new ways to do their jobs creatively, taking advantage of AI instead of being replaced by it."

The advent of an AI-powered workforce could actually produce big dividends. Because AI can do so much so quickly and inexpensively, companies could see enormous boosts in efficiency that enable them to offer better products at much lower costs, to consumers' benefit. Companies will likely in turn see a boost in revenues—though whether that bounty spills over into the whole economy or just makes executives and investors richer while millions of workers lose their jobs is an open question.

Services could improve, too. For instance, AI customer-service representatives may actually be able to solve customers' problems. Phone apps could be tailored to each person's needs. Home assistants could discover new music that clicks with each person's tastes, watch over elderly relatives and hunt down discount food supplies and hard-to-get sports and concert tickets. "AI could make a lot of our interactions better," says Curran. Because it will have contextual empathy, it will recognize what you're doing and what's going on around you, and anticipate what you want or need based on that understanding.

The changes are expected to be transformative, which makes them difficult to predict. "This is where we were during the early days of the internet," says Seamans. "It ended up dramatically changing the way we work, play and interact. It will be the same with AI." N



FORGET MERELY SURVIVING. FORMULA 1 CEO **STEFANO DOMENICALI'S** GOAL IS

DRIVE T

Illustration by ALEX FINE *Rendering by* ARAND

TO CAPTURE THE HEARTS, MINDS AND WALLETS OF AMERICA

TO WIN

by **PAUL RHODES**



GETTY

ON THE FAST TRACK
Formula 1's popularity is surging in the U.S., with record viewership of 1 million or more per race last year, a 28 percent increase over 2021.



DUTCH DRIVER MAX VERSTAPPEN MAY HAVE claimed victory at the Miami Grand Prix on May 7, but it was Formula 1 president and CEO Stefano Domenicali who was the real winner. The second running of the race was the first of three grand prix in America this racing season—the most held on U.S. soil in nearly 40 years—in a resurgence led by the Italian executive and the series' Colorado-based owner, Liberty Media.

Through clever marketing via social media and the hit Netflix series *Drive to Survive*, plus enough youth-friendly "woke" ideology to ruffle the feathers of the Miami Grand Prix's host state governor, Ron DeSantis, Formula 1 is capturing the imagination of a new generation of American fans. With a seemingly glamorous, celeb-filled international jet set vibe and the buckets of cash that come with it—reigning champion Verstappen is said to be raking in $55 million to drive his Red Bull Honda this season—it is not hard to see how Formula 1 has turned more than a few young heads in the past few years.

"This is an incredible opportunity to make sure that the new fans watching for the first time are captured by us," Domenicali told *Newsweek* before the Miami race. "Explaining the sporting excitement that is on the track, explaining the incredible experience that we want to give to the fans that are attending the races, and explaining the passion and the technology that is behind the scene of Formula 1 and making sure that we give to our new American audience all the elements for them to choose. We want to make sure that they have everything [so] they're going to choose Formula 1, for bigger growth for us in this incredible country."

The European-dominated racing series has, for now, headed back to the continent, where the bulk of the summer races are held, starting with the Monaco Grand Prix in Monte Carlo on May 28 and the Spanish Grand Prix in Barcelona the following weekend. F1's new stateside focus, however, hasn't been missed by other American heavyweights in motor sport.

Gene Haas, founder of toolmaker Haas Automation and co-owner of Stewart-Haas Racing, which competes in NASCAR, debuted his eponymous Formula 1 team in 2016. Meanwhile, Ford is set to supply engines to the Red Bull team starting in 2026, and Andretti





CLOCKWISE FROM TOP LEFT: ANDREAS SOLARO/AFP/GETTY; BETTMANN/GETTY; BARRATTS/PA IMAGES/GETTY; BERNARD CAHIER/GETTY; KEYSTONE/HULTON ARCHIVE/GETTY

Global is teaming up with Cadillac to potentially join the championship in 2025 (pending approval by F1). There is even an American F1 driver, 22-year-old Logan Sargeant, in the series for the first time since 2015.

"It is so good to be home," the Florida native told *Newsweek*, before the Miami race. "I'm definitely proud and privileged to have the opportunity to represent America. I've done the full loop of starting racing here in Miami and coming back to race F1 here is pretty special."

Not perhaps since 1978, when Mario Andretti became only the second American (after Phil Hill in 1961) to win a world championship, has Formula 1 enjoyed such popularity in the U.S. ESPN saw record viewership in 2022, with an average of 1.2 million viewers a race across ESPN, ESPN2 and ABC, a 28 percent rise over the previous record of 949,000 average viewers set in 2021. The 2022 season was also the first in U.S. television history to average 1 million or more viewers per race.

Some 400,000 fans headed to Austin for the United States Grand Prix last year—the most of any race on the F1 calendar—while Formula 1 said that in 2021 followers across Facebook, Twitter, Instagram, YouTube, TikTok, Snapchat, Twitch and Chinese social platforms increased to 49.1 million. By 2022, that had grown again by another 23 percent. Over the past four years, F1 says it has been the fastest growing global sport league in terms of social media followers. And it's now a gender-diverse group too: Around 40 percent of Formula 1 fans are female, up from just 8 percent when Liberty Media bought the racing series in 2017 in a $4.4 billion deal.









IN THE DRIVER'S SEAT
Left: F1 CEO Stefano Domenicali. Below, clockwise, from top left: Mario Andretti crossing the finish line in 1978; Maria Teresa de Filippis, one of only two women F1 drivers; American Phil Hill and teammate Wolfgang von Trips, circa 1961; Lella Lombardi, the other woman to race in F1.

All of these fans helped Formula 1 earn $2.6 billion in total revenue in 2022, up from $2.1 billion the previous year. Operating income increased 333 percent, from $40 million to $173 million over the same period. Surging fan interest and revenues have seen the total value of the business soar to nearly $17 billion.

Despite this success, Domenicali is not done yet. In an exclusive interview with *Newsweek*, he talked about Formula 1's drive to grow the championship even further in America and beyond, how he is improving diversity and getting more women involved in the sport, how technology will play a crucial role for F1 to achieve its pledge of carbon-neutrality by 2030, and how he hopes a new Hollywood film starring Brad Pitt and produced by champion driver Lewis Hamilton will capture all of the glitz, glamor and thrills of the open-wheel racing series.

'My Love Has Always Been with Cars and Motor Sport'

"I'M IN MIAMI," SAID 58-YEAR-OLD DOMENICALI, ALL smiles on a call from the Sunshine State before the Grand Prix. He speaks with the excitement of a schoolboy and at the speed of an F1 car going full pelt as he describes his enthusiasm for motor sport. He was born the son of a banker in Imola, home of the Emilia-Romagna Grand Prix, which was called off in May due to heavy storms and flooding in the region that claimed at least 13 lives.

The region is the heartland of Italian motor racing. It is home to Ferrari, where in 2008, as team principal, Domenicali won a Constructors' Championship, F1's top prize for race teams, and to Lamborghini, where he was chief executive from 2016 to 2021, when he left to run Formula 1. But the CEO's passion for racing started much earlier than that.

"My love has been always with cars and motor

THE LOWDOWN ON FORMULA 1

New to the sport? This F1 guide will get you up to speed quickly on the world's fastest, most technically advanced form of motor racing.

WHAT DOES THE NAME SIGNIFY?

▸ The name is meant to represent the top tier of single-seater, open-wheeled racing, or the premier "formula." There are also Formula 2, Formula 3 and Formula E series (for electrically powered vehicles), which feature standardized cars that drive at lower speeds; in F1, each team designs and builds its own cars.

HOW LONG HAS F1 BEEN AROUND?

▸ Formula 1 as we know it now grew out of European Grand Prix championship racing in the 1920s and 1930s. F1 racing developed a standardized set of rules in 1946, with a World Championship of Drivers established in 1950. The first race, won by Italian Giuseppe Antonio "Nino" Farina, in an Alfa Romeo, was held at Silverstone, home of the British Grand Prix.

WHAT'S THE FORMAT?

▸ The current grid is made up of 10 teams with two drivers each. This season they will compete around the world in 22 Grand Prix on racetracks and street circuits, in high-tech cars, powered by 1.6-liter V6 turbocharged hybrid engines, that can reach speeds of 220 miles per hour.

HOW DOES THE SCORING WORK?

▸ The individual drivers collect points for their drivers' championship, while the teams compete in the constructors' championship. The top 10 finishing positions win points, with the first-place finisher getting 25; second, 18; third; 15 and so on. A bonus point is awarded to the driver who completes the fastest lap in the race, and additional points can be won by the top eight drivers in six sprint races that are held on the Saturday before the Sunday Grand Prix.

WHO'S AHEAD NOW?

▸ Two-time world champion Max Verstappen and his Red Bull Honda teammate Sergio Perez are currently the top dogs.

HOW DOES THE U.S. FIT IN?

▸ While the sport has its roots in Europe, the U.S. and American drivers have long been involved.

Frenchman Louis Wagner won the first ever "United States Grand Prix" in Savannah, Georgia, in 1908, however the race does not count in F1's history books. Following the creation of the World Championship, from 1950 to 1960, the Indianapolis 500 was included in Formula 1. The first championship-recognized U.S. Grand Prix was held in Sebring, Florida, in 1959. The second race was held in Riverside, California, before it moved to Watkins Glen, New York, in 1961 and stayed there until 1980.

A U.S. Grand Prix West was added in Long Beach, California, from 1976 to 1983, while Formula 1's first two outings in Las Vegas, in 1981 and 1982, were much derided for being held in the parking lot of Caesars Palace Hotel. In the 1980s, Grand Prix were held in Detroit and Dallas, with a few races at the Indianapolis Speedway (separate from the Indy 500) from 2000 to 2009.

The United States Grand Prix was re-established at the Circuit of the Americas in Austin, Texas, in 2012, with the high-speed track proving a hit with fans and racers alike. N

sport," said the bespectacled F1 boss, who counts skiing and aviation as his hobbies (he served in the air force when he was younger). "I was looking at racing when I was a child. [In] high school, I was going like a lot of students, helping the promoter, to be there at all the races. Then, after university [in Emilia-Romagna's capital, Bologna], I sent my [resume] to a lot of companies and I started that journey when I was 26 formally with Ferrari."

He insists his successful career in the top echelon of motor sport is one based on hard work that can be replicated by equally capable and industrious individuals. The married father of two said: "I feel very proud but very privileged. I come from a very normal family, I went to public school, and I'm here.... So, that shows that with commitment, with the passion, dedication, competence, there's no barrier."

For alongside words such as speed, excitement, entertainment and adrenaline, which you would expect to hear from the boss of a high-octane sport, during his talk with *Newsweek* Domenicali often mentioned other terms that, for some, may be more unexpected: diversity, inclusion, sustainability and responsibility.

'We Take Sustainability Very Seriously'

DOMENICALI IS DEEPLY COMMITTED TO THE SPORT'S Net Zero 2030 pledge, with plans to cut F1's carbon footprint by a minimum of 50 percent by the end of

ROBYN BECK/AFP/GETTY









FROM TOP: DAN ISTITENE/FORMULA 1/GETTY; GREG DOHERTY/FORMULA 1/GETTY

the decade. To reach this target, F1 will focus primarily on reducing the amount of equipment and people the group and all 10 teams move around the world. Travel and logistics created nearly 73 percent of Formula 1's overall carbon footprint of 256,551 tons of CO2 in 2018, with facilities and factories creating nearly 20 percent. Just over 7 percent came from event operations, F1 said in a report. By changes it had made in its working practices, which include using renewable energy at its offices and, where possible, at race venues, F1 said by 2021 it had already reduced its overall carbon output by 17 percent.

Domenicali says the goal will also be achieved with the help of the racing series' business partners, which include Saudi oil giant Aramco, by introducing e-fuels to help power the electric hybrid engines that the cars already use now, even though race car emissions make up less than 1 percent of the sport's carbon footprint.

He says e-fuels, made from combining hydrogen and carbon dioxide in an industrial process to create a synthetic fuel that produces zero net emissions, will not only help Formula 1 lower its carbon output but the technology can also be scaled for use in the aviation industry and with shipping, as well as in consumer cars and trucks. Many improvements in hybrid engines in personal vehicles have been advanced by technologies developed in Formula 1, but so far e-fuels have proven too expensive for mass commercial use.

Domenicali said: "We take sustainability very seriously. We have already decided to go hybrid with sustainable fuel in 2026. And we are pushing very hard to make sure that we are carbon neutral in 2030."

"It's a big job," he added, which is "the reason why we need everyone to embrace our strategy, that the strategy is right, and we need to deploy it with the help of every single component of our ecosystem. I think that the speed of Formula 1 can accelerate this technology to be much more effective."

"WE WANT TO HAVE A MORE DIVERSE CULTURE AND DIVERSE PEOPLE IN OUR ECOSYSTEM—ENGINEERS, MECHANICS, TECHNICIANS, MARSHALS—EVERYONE."

F1 IN AMERICA
Left: A practice session for 2021's Grand Prix in Austin, Texas. Above, from top: launch party for the 2023 Grand Prix in Las Vegas; Domenicali chatting about the Vegas race.

Formula 1 is not the only sport to do this. The NBA has pledged to halve its carbon emissions by 2030 and to be net zero by 2040. Like F1, Commissioner Adam Silver has said much of this will be achieved by changing the schedule to reduce travel.

To get to net zero by 2030, Domenicali says that "carbon credit is part of the complete strategy, for sure"—which is where some critics say the plan falls down.

Carbon credits are purchased by companies (or governments or individuals) to offset emissions by supporting projects, such as tree planting and mangrove restoration, that remove carbon from the atmosphere. There have been questions surrounding the efficacy of some such projects, but Formula 1's head of ESG, Ellen Jones, insisted the sport's primary goal now is to reduce its own emissions. However, Jones added: "We do realize as we get closer to 2030 offsets will have to be considered for what is that remaining balance of unavoidable emissions."

When asked if Formula 1 can really be carbon neutral by 2030, Ursula Bittner, economic expert at Greenpeace, told *Newsweek*: "If they're using offsets,

definitely not." She added: "Our view is that offsets are counterproductive because it basically gives the option to not really reduce [emissions]."

Formula 1's accounting also does not appear to include the carbon created by fans attending events. If just 10 percent of the estimated 5 million fans who went to watch Formula 1 races in 2022 traveled 60 miles on their journeys, Bittner said, that alone would create an additional 10,000 tons of carbon, the equivalent of running 6,000 family cars for a year.

Bittner said Formula 1 "needs to change to electric cars", a plan that Domenicali has dismissed. However, Bittner wasn't wholly dismissive of F1's plan: "If they take [their carbon pledge] seriously, they could be like a perfect role model, not only for other sports but also for people and also having investments in science."

'We Want to Have a More Diverse Culture'

AS WELL AS TRYING TO GO GREEN, FORMULA 1 IS attempting to tackle diversity head-on through its F1 Academy, a racing series that is literally putting women in the driving seat. Only two women, Italians Maria Teresa de Filippis and Lella Lombardi, have ever qualified to race in Formula 1.

Domenicali said: "This year we have the F1 Academy to make sure we can have some girls be attracted [to] our sport. That's showing with facts, money and investment, how we really do care about the diversity in our sport, not only in terms of drivers, but also we want to have a more diverse culture and diverse people in our ecosystem—engineers, mechanics, technicians, marshals—everyone."

The F1 Academy is a 21-race series featuring 15 female drivers on five teams with the aim of developing young women to higher levels of competition. The Academy teams are run by current teams in Formula 2 and 3. These are open-wheeled racing series with cars that have less power and cheaper parts than in F1, allowing drivers to gain experience in the hope of one day reaching the big time. Domenicali has suggested it may take five years before we see a female driver make it to Formula 1.

F1 has also extended a scholarship program, started in 2020 with a $1 million personal donation by Domenicali's predecessor, Chase Carey, to give young people from underrepresented groups the chance to work in and train as engineers in Formula 1.

Domenicali continued: "We are taking [diversity] very, very seriously. We are really frontline. We pay scholarships to underrepresented communities, our unprivileged communities, to make sure we can give an aspirational path for people."

'Competitiveness is an Extremely Important Trait'

STILL, THE PATH FOR MANY DRIVERS BEGINS WITH privilege. It doesn't hurt that billionaire businessman Lawrence Stroll, the father of Canadian driver Lance Stroll, owns the Aston Martin F1 team with whom his son drives, nor that Max Verstappen's dad Jos was a former Formula 1 driver.

British seven-time world champion Lewis Hamilton, the only Black driver in F1 history, has called the sport now a "billionaire boys' club." Hamilton, who grew up in the blue-collar town of Stevenage, about 30 miles north of London, has talked about how his dad worked multiple jobs to fund his son's F1 dream and would toil through the night to repair the karts he raced in as a kid. Hamilton, who started racing in F1 in 2007, believes such sacrifices wouldn't be enough to make it today. As he told Spanish newspaper *AS*, "Growing up in a normal, working-class

CAST OF CHARACTERS
Right: Ferrari driver Carlos Sainz at this year's Miami Grand Prix. Below, clockwise, from top left: F1 drivers Logan Sargeant; Max Verstappen; Lewis Hamilton and Sergio Perez.

CLOCKWISE FROM TOP RIGHT: CRISTIANO BARNI/ATP IMAGES/GETTY; CHRIS GRAYTHEN/GETTY; CLIVE MASON/GETTY; JARED C. TILTON/GETTY; CHRIS GRAYTHEN/GETTY

"THERE IS NO DOUBT THAT IF THERE IS A GREAT AME











RICAN DRIVER, THIS WOULD BE ANOTHER **GREAT BOOST** FOR THE AMERICAN MARKET."





family, there is no way I could be here—the guys you are fighting against have that much more money."

Domenicali admitted there are financial "barriers to entry" to the sport but said: "The majority of the F1 drivers that are today in the championship are coming from a very normal base." The mechanic father of French driver Esteban Ocon, who races for Alpine, for example, sold his business and family home to fund his son's karting career. The family lived in a motorhome, driving from race to race when Ocon was starting out.

However you cut it, a lot of money is needed to get to Formula 1. In 2015, Mercedes team boss Toto Wolff told business magazine *Raconteur*: "If somebody is very talented, you probably need to spend 1 million euros (around $1.1 million) in karting through junior, senior and international races." Then comes Formula 4, 3 and 2. Wolff continued: "You are on the verge of getting into Formula 1, but you are not in there, you need another 2-3 million euros to get the drive. So, you are talking about 7-8 million euros ... let's call it 8 million ($8.8 million)."

Parental backing played its part in Fort Lauderdale-born Sargeant's success. He was born into a wealthy family that made its money from shipping. After tearing up the karting tracks of Florida as a youngster, he moved at age 12 with his older brother Dalton and their dad, Daniel, to the U.K. to pursue his Formula 1 dream. Last year, Sargeant—who is now based in London but has "still got that American accent, that's never going anywhere"—became the first American to win a Formula 2 race and was invited to take a seat with Williams Racing in Formula 1 for the 2023 season.

"I owe [my parents] a lot, for sure," Sargeant admitted. "Their support has been massive."

The rookie driver has had a rough season so far, failing to finish higher than 12th before Monaco and coming in dead last in Miami. Sargeant picked up damage to the front wing of his car that required him to take an extra-long pitstop to replace it on the second lap of the race, putting him out of contention early. Still, the Floridian reckons



MIAMI VIBES
Glitz, glamor and racing: Some 270,000 fans attended the Grand Prix in Florida this year. Here, the starting line-up.

FORMULA 1 SAW **RECORD VIEWERSHIP** *IN THE U.S. LAST YEAR, WITH AN AVERAGE OF 1.2 MILLION VIEWERS A RACE,*



A 28 PERCENT RISE OVER THE 2021 RECORD.

JARED C. TILTON/GETTY

his fighting nature will help him persevere.

"I think competitiveness is an extremely important trait to have," he said. "That is what drives me to keep getting better, day after day. I love the adrenaline.

"It's very early days. I'm still trying to build myself as an F1 driver, which is a challenge. That's where I'm looking at the moment, taking it day by day, trying to be better each and every time I get in the car.

"I feel like I'm one of the most competitive people in the world. I absolutely hate losing. And I feel like, also, having an older brother, that helped drive me. You know, trying to be better than the older brother, which is never an easy challenge."

Dalton Sargeant, 25, went on to compete in the NASCAR Craftsman Truck Series. Was NASCAR ever a consideration for Logan Sargeant when he was racing through the junior development ranks?

"The goal as a kid was always to make Formula 1," he said. "We know how difficult it's going to be, so you keep your mind open to other opportunities. But when I moved to Europe, that was the direction we were heading, and we did everything in our power to get to this point."

'That Drama Between the Drivers ... That's What Gets You to Watch'

AT A PACKED STREET CIRCUIT THAT SURROUNDS THE Hard Rock Stadium in Miami, it is easy to see the attraction. Billionaires Jeff Bezos and Elon Musk, along with actor Tom Cruise and Kansas City Chiefs quarterback Patrick Mahomes, were among the 270,000 race fans (30,000 more than the inaugural race last year) who flocked to catch a glimpse of the incredible men and their racing machines.

Much of the hype around Formula 1 in the U.S. is due to the success of *Drive to Survive*, the Netflix series that gives a behind-the-scenes look at the traveling F1 circus. Nielsen data revealed the show had nearly 570,000 viewers over the fifth season's first week in February—a 40 percent leap over 2022's season 4 debut and the most yet for the program. According to Statista, there were 49.2 million F1 fans in America in 2022, up from 44.9 million in 2019. A March 2022 poll by Morning Consult of nearly 1,900 self-identified adult U.S. Formula 1 fans showed 53 percent said *Drive to Survive* was the reason they started watching F1 races.

"That particular series does something for F1 that any motor sports series needs and that's to bring









A 2022 POLL OF U.S. FORMULA 1 FANS SHOWED 53 PERCENT SAID DRIVE TO SURVIVE

out the personalities in the drivers. Because when you get people interested when they're young, that makes for lifelong fans," says Brett Boyle, associate professor of marketing at Saint Louis University's Richard A. Chaifetz School of Business, likening the appeal to that of the highly successful *Real Housewives* franchise. "You know, there's [the] drama between drivers, the competitiveness, the backstories… that's what gets you to watch because otherwise you're just watching cars go very fast."

These new U.S. fans drawn in by the show are just the type F1 is after, too: young and affluent. Some 46 percent are younger than 34, according to Nielsen, while 69 percent earn more than $100,000 a year. Worldwide, F1's fans are one of professional sports' youngest, with an average age of 32, a survey commissioned by Motorsport Network in partnership with F1 and Nielsen Sports found.

But name recognition is still an issue for many drivers in the U.S.; only Hamilton has managed to install himself as a semi-regular on the late-night talk show circuit. Williams Racing has made a big publicity push with Sargeant, who rang the closing bell at NASDAQ in April, but it was Mexico's Sergio Perez who got the biggest cheers at the Miami Grand Prix from the large contingent of Hispanic fans in the crowd. Even Australian racer Daniel Ricciardo, who doesn't have a drive this season, is trying to keep his name in the spotlight, turning up at the Met Ball, which Hamilton previously attended.

"When the marginal fans say, 'I recognize that person as an F1 driver,' that's a telling tale that you know you've made it," says Boyle, who is also executive director of SportMetric Research. "Somebody that's not a motor sports fan is going to be introduced to the sport through recognizing a driver rather than the event itself."

He adds: "One of the challenges F1 has is the lack of American drivers. That's not a detriment necessarily with young people, because I think they look beyond nationalities.… But for the longevity of F1, it's important they develop American drivers."



It's a point Domenicali takes issue with. He said: "It's important to focus on the quality of the drivers, not only the passport. [The way the driver system] is built up is giving the right possibility for everyone who wants to grow.

"Of course, there is the attention on teams to make sure that drivers are developed. It's very important and there is no doubt that if there is a great American driver, this would be another great boost for the American market. So, let's hope that Logan Sargeant will be the first to push for younger ones to be interested in Formula 1."

The popularity of the sport has not just seen the championship expand in the U.S. but further extend its reach around the world, growing from 17 races in 2020 to 22 this season (it would have been 24, if the Emilia-Romagna and the Chinese Grand Prix had not been canceled due to flooding and COVID-19, respectively). Some have speculated this number would jump to 30 by the end of the decade but Domenicali shoots that down.

"There are more places that [would] like to host Formula 1," he said. "[But] we need to be balanced in our projects, so we're gonna stay with 24. That's a credible number."

While it has been rumored that some older races in Europe may be pushed off the calendar to make way for new circuits, it doesn't look like the U.S. will be getting any more than Miami, Austin for the United States Grand Prix in October and the return of the Las Vegas Grand Prix in November, for now. "For the moment to have three races in the US...I think it is the right balance," Domenicali said. "I'm really happy to be here in Miami, really happy to go back to Austin and really excited to be in Vegas."

On F1 moving to new venues, he added: "I think this depends on how a promoter or country wants to present it to us. The right thing is to make sure that every grand prix has its own different personality. Our goal is to make sure that there is the right mix."

Ever the salesman, he is trying to find new ways to promote the sport he loves and is looking forward to having Hollywood put Formula 1 on the big screen, with Brad Pitt donning a driver's helmet. To ensure the action is as real as possible, *Top Gun: Maverick* director Joseph Kosinski and producer Jerry Bruckheimer, who are leading the untitled project with Hamilton co-producing, will be filming during the British Grand Prix race weekend in July. In the movie, backed by Apple Original Films with an estimated $140 million budget, a Formula 1 racer comes out of retirement to mentor a younger driver.

"We know that we need to capture the attention of different groups of people. The movie shows how progressive we are in trying to make sure we present our product on every single platform," Domenicali said. "We are involved with them. It's a huge project because we start the shooting in Silverstone [home of the British Grand Prix], something that has never happened before."

Like always, it seems, Domenicali is trying to find new ways to get fans excited about, as Boyle calls it, "watching cars go very fast."

Domenicali signed off by saying: "I just want to make sure that everyone is curious about Formula 1. Get connected with us, try to push us to answer your questions, be positive coming to see us and try to capture the intensity of our sport that is unique. It is unique to see our fans all together cheering for the different teams, different drivers, but sharing the same passion without any negativity. That's really what we want to do."

WAS THE REASON THEY STARTED WATCHING F1 RACES.



EXPANDING REACH
Far left: Scenes from the Netflix hit series *Drive to Survive*. Near left, from top: Brad Pitt, star of an upcoming F1 movie, with the Williams racing team; a student at the F1 Academy. Below: Domenicali at this year's Grand Prix in Baku, Azerbaijan.

COUNTERCLOCKWISE FROM TOP LEFT: NETFLIX (2); DAN MULLAN/FORMULA 1/GETTY; ERIC ALONSO/FORMULA 1/GETTY; DAN ISTITENE/FORMULA 1/GETTY





GLOBAL

Most Loved Workplaces

2023

WHAT DOES IT MEAN TO BE A Most Loved Workplace®? Fringe benefits and fair compensation influence employee engagement, of course, but culture is an even more significant influence on sentiment. Employees who feel included, recognized and valued love their workplaces. And associates who love their workplaces — dreamers, doers, innovators and leaders —enjoy longer tenure and do better work.

Newsweek, in partnership with benchmark research company Best Practice Institute (BPI), is proud to announce our annual ranking of "Global Most Loved Workplaces 2023." The 100 top global companies on this list stand out to their employees. They have open-door policies where employees feel heard, offer flexibility that supports work/life balance and provide opportunities for professional development, promotion and recognition. his ranking is based on BPI's proprietary Love of Workplace Index™ analysis of data provided directly from employees along with analysis of external public online ratings and direct interviews with and responses from company officials. Congratulations to these extraordinary workplaces!

▸ **Nancy Cooper,** *Global Editor in Chief*

GETTY

▸ **Most Loved Workplaces®** *is a registered trademark of the Best Practice Institute, Inc., of Palm Beach Gardens, Florida.*

The Top 100

1 HLB International

ENGLAND, 40,831

HLB International sets itself apart from competitors by being more approachable, flexible and offering a better work-life balance. Its Global Diversity and Inclusion Council drives clear and ambitious goals for gender diversity and the inclusion of underrepresented groups through "Days of Understanding" to have candid conversations about diversity. The HLB Engage program provides young and ambitious employees networking opportunities, developmental and cross functional projects to gain exposure throughout the entire company. The HLB Skills Hub supports all HLB people with upskilling and reskilling efforts and also serves as an internal marketplace for all kinds of opportunities on a global level.

2 Certinia

U.S., 1,000

With offices throughout the Americas, U.K., EMEA and APAC, this company brings its employees' voices to the forefront; the top 100 performance leaders attend a leadership summit presenting ideas *Shark Tank* style. Certinia offers opportunities that allow employees to engage and connect. Extensive PTO, volunteer opportunities, guest speakers and even a gift-giving program help to maintain work-life balance and camaraderie.

3 Experian

IRELAND, 21,700

Experian creates a strong sense of inclusion and belonging. It has a DE&I training program for leaders, and next year will roll out training for all employees. In terms of development, its "Career Hub" is a one-stop shop with three components that provide all employees opportunity regardless of where they are in their career.





4 Warren Investments

BRAZIL, 550

Warren Investments is committed to equality. Executives get coffee for interns and bring people in from the street and train them into a career. The company even provides associates access to the same stock packages as its clients. Its values aren't only written on the company walls—they're also written on the cans of beer in the company fridge!

5 On

SWITZERLAND, 1,800

On has little red tape to achieve its goals. It uses the Herrmann Brain Dominance Instrument (HBDI) to understand how employees think to ensure that teams have a mix of thought processes. On was born in Switzerland, so it has been a global company from the beginning—requiring a representation of employees from around the world on day one, it built a very diverse workforce.

6 Pestana Hotel Group

PORTUGAL, 5,000

Pestana Hotel Group has expanded throughout Europe, Africa, South America and the U.S., offering global opportunities in hospitality, like allowing employees to work for 3 to 6 months in another country, where they gain cultural expertise and share best practices. It also offers an 18-month international development program for mentorship from senior leaders.

7 Celigo

U.S., 700

Celigo embraces an autonomous, diverse workplace. Employee experience is critical, and their voices are never ignored. Feedback is solicited regularly, and employees are encouraged not to shy away from speaking on difficult topics. The organization always strives to develop competency and improve peer-to-peer accountability with a focus on making things better for the next team in line.

8 Turo

U.S., 873

The CEO of Turo deejays employee dance parties and shows up with donuts to chat about corgis, but don't let the collegial good times fool you—they're totally serious about career development with $2,000 awarded to each employee annually for learning and development, quarterly performance bonuses, continuous access to leadership and opportunities for career growth.

9 AKQA

U.S., 2,800

AKQA's culture is built on trust, recognition and accountability for living the company values. It calls for actions over words, stresses transparency and respect and encourages collaboration and growth. Employees are empowered to create their own work through AKQA Insight and WPP Professional Development. There are ample opportunities for employees to collaborate with the aim of making the customer's life better.

10 PartnerHero

U.S., 2,348

PartnerHero provides individuals opportunities to change their lives and communities by feeding the hungry, clothing those in need and offering disaster response. There is a strong focus on DE&I and a laid-back, tranquil culture. The company aims to live by its mission without borders and offers travel opportunities to Honduras and the Philippines with higher pay for working there.

11 Join Talent

SCOTLAND, 200

Join Talent is a 100 percent remote company where employees enjoy transparency and trust. Monthly pulse surveys show people are grateful for an open culture where they can be themselves. Employees are encourages to have work-life balance and support personal goals through a program called JT Dreamers.

12 Blueground

U.S., 800

The Blueground workplace is very culturally diverse. BG Nomads can live and work anywhere, staying connected through technology and off-site in-person events. The CEO incorporates transparency and care in all aspects of operations, starting with a personal welcome to all new Bee-Gees. There is a high level of talent here and the opportunity for growth.

FROM LEFT: HLB INTERNATIONAL; WARREN INVESTMENTS

13 Wind River

U.S., 1,539

At Wind River, training opportunities result in a team of experts across the globe who lead projects. Leadership conducts ask-me-anything sessions, surveys, symposiums, round tables, road shows and listening tours regularly. So much listening has resulted in additional benefits like compensation options, a Self-Care Week, volunteering days and birthdays off in addition to access to Unmind, a platform for meditation and mental wellness.

14 Hilton Grand Vacations

U.S., 15,000

Hilton Grand Vacations envisions a world where people go further and do more. It views its employees as family and makes putting people first a priority with an annual engagement survey and shorter surveys throughout the year. The organization cares about its team members and community, doing what it can to support and inspire them, like inviting employees to send recognition that can be redeemed for gifts.



16 Kraken

U.S., 2,300

Kraken is known as authentic and security-minded. There's no email—these global crypto natives stay connected through hundreds of active Slack channels, connecting on ideas with each other to develop new products. Virtual work means that meetings are held in resorts and oriented around growing connections to each other and their mission to boldly go where no one has gone before with cryptocurrency.



15 Dr Lal PathLabs

INDIA, 4,850

Dr Lal PathLabs did a refresh of its values and a month-long launch with workshops. Every month is the month of a certain value where employees are rewarded and recognized for living that value. It started to focus on more mental well-being, running seminars and ultimately adding meditation sessions. The company also provides medical insurance for all employees and their families—even their parents.

17 Moveworks

U.S., 540

Candidates are attracted to the fast-paced environment in a trending industry. Once hired, they state that the best perk of the job is the incredible, talented team they have the opportunity to work with. The team works together to bring Moveworks' mission to life: to make language the universal user interface.

18 JUMO

SOUTH AFRICA, 201

Candidates are drawn to the high-talent team and positive culture at JUMO. Employees are excited to work at a startup with potential for growth. DE&I, personal well-being and responsible business tactics are viewed as integral company values by all levels and departments and are considered when making major decisions.

19 Zapier

U.S. 800

Zapier is a proud leader of easy automation regarding workflows and data movement. The team environment is positive and members report feeling cared for by their peers. The company understands the importance of a healthy work-life balance and believes in "play every day."

20 Automattic

U.S., 2,003

Employees at Automattic enjoy an environment that is inclusive and respectful toward all. Work-life balance is a priority and is supported by an open vacation policy. Employees are eager to work toward the company goal of democratizing publishing so that anyone with a story can tell it, regardless of income, gender, politics, language or where they live in the world.

21 Incyte
U.S., 2,378

Incyte's vision is to become a leader in the development and delivery of novel drugs for serious unmet medical needs. The company cares about its employees and shows this through competitive salaries, strong benefits and great products. There is a healthy work-life balance and a positive culture that strives for teamwork.

22 O2e
CANADA, 723

The top draw to O2e brands is the strong culture and cohesive teams. The company fosters this by hosting frequent bonding events and celebrating each win together. There is the freedom to innovate and room to grow within the company with professional development programs offered and encouraged.

23 PureSpectrum
U.S., 168

PureSpectrum is built on the ethos of making researchers' jobs easier. The company is a rapidly growing startup viewed as a great place to work by its employees. The team is kind and always willing to help one another. An additional perk of the job is the strong benefits package and unlimited PTO.

24 EPAM
U.S., 59,250

EPAM offers the best of both large-company and startup worlds. Employees feel they can make a difference in the industry, their communities and careers with Journey—a six-stream platform for Professional Growth, Onboarding, Learning & Development, Staying in Touch, Recognition and Professional Opportunities. Employees can chart their own course and be their genuine selves in an open-door environment where everyone has a voice.

25 BVNK
ENGLAND, 216

BVNK bridges the gap between traditional and digital finance to make payments borderless, instant and secure. Employees love the culture and the experience of working at a rapidly growing company. Webinars, conferences, resources and courses propel employees' self-led career goals. They report that they feel the leadership team is strong, exemplified by their CEO addressing current market changes, team changes and the resulting impacts openly and head on.

26 Wyndham Hotels and Resorts
U.S., 2,535

Wyndham offers a low-stress, fast-paced work environment. There is a strong focus on work-life balance and the opportunity to work remotely Monday through Friday with a company-wide half-day every Friday. Employees enjoy on-site perks, including a gym, Starbucks and nurse practitioner. Employees say the hospitality is fun, and the customers are enjoyable to work with.

27

Ansys
U.S., 5,600

Ansys' mission is to deliver the predictive insights of simulation whenever and wherever they're needed and to accelerate the next great leaps in human advancement. Employees report a great work-life balance, culture and teams. They are proud to do high-impact work with good people.



FROM LEFT: LUIS ALVAREZ/GETTY; RAWPIXEL.COM/MCKINSEY; ANSYS

METHODOLOGY

Newsweek's **ranking of the 2023 Most Loved Workplaces** was created in partnership with Best Practice Institute (BPI), a benchmark research company that studies and identifies the specific management practices that lead to employee motivation and satisfaction and has documented the strong link between worker satisfaction and productivity and performance.

BPI measures five basic areas to determine how employees feel about where they work to create the Most Loved Workplaces list: the level of collaboration at the firm; how positive workers are about their future at the company; how much employer values align with employee values; respect at all levels and career achievement. Working in consultation with *Newsweek* editors, BPI also gave consideration to return-to-office policies, diversity, equity, inclusion and belonging and other workplace and talent development initiatives.

Altogether, more than 2 million employees were surveyed at companies ranging in size from 30 employees to more than 10,000. Additionally, several hundred company officials were interviewed.

To identify the top 100 companies for the ranking, companies were evaluated and scored as follows: 35 percent of the initial score was based on responses to BPI's proprietary Love of Workplace survey. Another 25 percent was derived from analysis of external public ratings from sites such as Comparably, CareerBliss, Glassdoor, Indeed and Google. The final 40 percent came from direct interviews with and written responses from company officials. *Newsweek* then conducted additional research into every company on the list, as well as the top runners-up, to determine the final list of 100 companies and their rankings. (The list includes both U.S. firms and companies with a strong U.S. presence that are based overseas.)

The rankings combine quantitative and qualitative analysis developed by BPI in partnership with The School of International and Public Affairs at the University of Pittsburgh and featured in the book *In Great Company* (McGraw-Hill, 2019) by BPI and Most Loved Workplace founder Louis Carter.

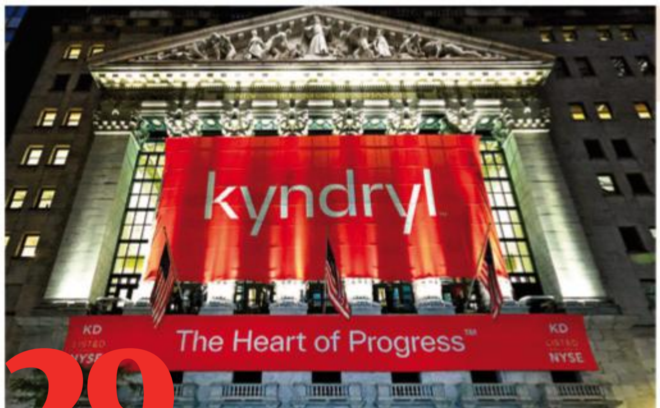
To find out more about becoming a certified Most Loved Workplace, or to apply for next year's list, go to *mostlovedworkplace.com*.

28 Media.Monks
U.S., 8,900

As part of the world's first "Global All Hands" program, the organization can offer the unique experience of working with global, diverse teams to make innovative creations. Media. Monks focuses on the "mark of now" and embraces a "break it to make it" culture. Leaders are fearless and work to inspire employees to do what has never been done before.

31 Cielo
U.S., 3,500

Cielo leaders believe it's important to show employees that the value of their work and opportunities for growth are often more valuable than money. The organization values energy, passion, the desire to move forward and interconnectivity. Employees are offered cross-cultural training, live session tours and career guidance. Cielo University offers leadership training.



29 Kyndryl
U.S., 90,000

Kyndryl, the world's largest startup, offers unique and exciting career opportunities. It is committed to employees, offering a low-stress, low-pressure environment and wellness programs to recharge through activities including meditation and yoga. Schedules and work locations are adapted to the employee's needs and whether in office or at home, Kyndryl ensures employees receive the recognition they deserve.

30 Nature Energy
DENMARK, 500

At Nature Energy everyone brings different specialized skills to the table, making collaboration vital. Managers attend quarterly fireside meetings and employees attend monthly meetings where they can ask the CEO anything. Strategy is a bottom-up process; each team suggests must-win battles which are narrowed down at a fireside chat. Employees have opportunities through graduate programs, internal organizational development and working abroad.

32 Flexera
U.S., 1,300

Although Flexera is a largely virtual organization, it encourages a tight-knit culture through "Together-Tuesdays," anniversary celebrations and a monthly celebration for "cloudies." The organization takes the well-being of its employees seriously and therefore offers mentorships, unlimited PTO and regular recognition. DE&I is an important part of the culture, and recruitment is linked to this value. Bias-training is offered to all employees.

FROM LEFT: KYNDRYL; VALIANT; BALL COMPANY



33 Valiant

U.S., 4,326

Valiant operates on the pillars of kindness and respect. The culture is one of open and trusting relationships, leading to a comfortable workspace. Employees report that they feel proud of their work and know that they are making a tangible difference in the world. Valiant invests in employees' personal and professional growth and well-being, putting the employees first in important company decisions.

34 Gilead Sciences

U.S., 17,500

Candidates choose Gilead Sciences to be part of a socially responsible and ethical company. The culture of inclusion and ability to make a difference in the world are just two lauded attributes. The CEO expects integrity and accountability from every employee, including himself, and believes everyone is a leader. Gilead's teams are taken care of with several health, wellness and development resources.

35 Colart

ENGLAND, 1,000

New joiners take art classes to connect with the brand and products. Employees are encouraged to get involved in projects outside of their roles. Consequently, many employees find new passions and change roles completely. With an open office plan, a stranger walking through has no idea who the execs are, encouraging openness to share ideas.

36 Cohesity

U.S., 2,200

Cohesity offers a fast-paced workplace with a lot of opportunities to grow. The organization is mission-driven, highly collaborative and puts a strong emphasis on giving back to the community. Cohesity is well aware of the importance of mental wellness and offers employees several programs to refresh and find balance. Additional skill-building programs are available, along with the opportunity for feedback at any time upon request.

37 Aptiv

IRELAND, 200,000

People love Aptiv's safe, green and connected mission in tandem with its clear and compelling business strategy. Aptiv recognizes the quality of individuals as both workers and people, providing coaching and mentoring options, internal job opportunities, global rotations and stretch assignments to help colleagues develop and grow their careers.

38 Hummel

DENMARK, 1,200

Hummel is a 100-year-old company on an interesting journey of developing the brand, creating new products and entering new markets. Employees have four development dialogues per year with their manager focusing on learning and development and training they want to take on. They are also given the opportunity to learn by working in a different country if they'd like.

39 IG Group

ENGLAND, 2,507

IG is a purpose-driven and growth-oriented company led by a female CEO. Employees love the opportunity to tackle challenges on teams that are made up of individuals from diverse geographic locations and backgrounds. The organization values tenacity, hard work and innovation. The hard work is recognized with bonuses and other incentives. IG offers several learning opportunities, including online platforms and guest speakers.

40 Ball Company

U.S., 21,000

Ball has a family feel, recognizes pay equity across the board, around the world, per an internal study by external experts. Parental leave is not gender dependent, plus intentional support for working parents like flexible and remote work. People from underrepresented communities will see themselves represented here from the interview to the C-suite and there are clear pathways for moving up within the organization.





41 Spotify

SWEDEN, 9,000

At Spotify, "Band Members" are encouraged to work how and where they do best. Leadership is there to support, not micromanage, and employees are able to build their own hybrid schedules with flexibility surrounding their base of operations. To excel in each role, Band Members have access to training and growth opportunities led by GreenHouse, as well as access to cross-functional projects.

42 AIA

HONG KONG SAR, 25,405

AIA has a variety of leadership academies for first-time managers to senior leadership, with all leadership programs having a segment on well-being to develop the whole individual. It has re-skilling academies where employees are guaranteed a new role after they complete the program. It launched unconscious bias training to make sure colleagues understand their role in creating the workplace environment.

43 Coforge

U.S., 23,365

Coforge is a people-first company believing in respect in the form of praise, trust, candor, feedback and transparency. Employees are in the spotlight and can make a significant impact. Learning and growth are important at Coforge as it is believed that as the employees grow, so does the company. Employees have many unique programs to take advantage of, including mentorship from the CEO himself.

44 Neo4j

U.S., 725

Neo4j is a community of people passionate about building something greater than themselves. The culture is driven, nerdy and fun. Employees are seen, heard, valued and capable of making a real difference. The company is transparent about all aspects of the business, including the good, the excellent, the bad and the ugly. Employees are treated with wellness days, equity sharing and skills training.

45 Motto

U.S., 30

Motto, where business insight is shared, career growth is supported and genuineness is everywhere. This women-owned company is led by an involved CEO who gives direct feedback and encouragement. Employees can ask for more opportunities and will be given more responsibility and compensation for it. Holiday bonuses, an independent working environment and unlimited/untracked personal time off make an ideal employer for working caregivers.

46 DataStax

U.S., 554

Employees at DataStax are sometimes coached but never managed. You get the benefits of a startup, like no internal job titles, with the work balance of an established company, knowing what is expected of employees each day and how their work fits the company's growth. The company also gives 100 percent medical premium coverage with no copays.

47 OpenCast Software

ENGLAND, 450

Opencast is a hybrid workplace offering employees the chance to make a positive impact on society. Each employee has a stake in the success of Opencast through share options and annual bonuses. The majority of the workforce approves of the CEO due to his light-touch approach to company hierarchy and open-door accessibility.

48 Hudl

U.S., 1,220

Hudl leans into creating a flexible, diverse and accommodating workplace. The workplace is hybrid and offices are activity based and offer free lunch and child care. Employees are passionate about their work and excited to exist at the intersection of sports and technology uniquely. Employees are set up to learn, grow, have fun and achieve.

49 TravelPerk

SPAIN, 1,200

TravelPerk puts an emphasis on values and culture. Values are embedded in the performance life cycle and every new joiner spends two days at headquarters in Barcelona learning. It also has a Community Team focused on employee experience and engagement. Each site has a Hub Ambassador who drives events for employees at that site—they utilize employee engagement survey data to create relevant experiences.

FROM LEFT: SPOTIFY; LUCIANA AITH/GYMPASS; SDI PRODUCTIONS/GETTY

50 Tata Communications

INDIA, 13,378

Tata Communications has a concept of “managers as coaches” and provides whatever training and certification is necessary for employees to achieve their goals. Notably, it also provides a global employee-assistance program to all employees and their families for confidential, professional counseling; a paid day off per year to volunteer and a child care policy of six months paid leave for primary caregivers.

51 TITANS freelancers

SLOVAKIA, 31

TITANS freelancers is a small company with a flat structure, keen on listening to people. Leadership has an open-door policy and communicates to the team in podcasts, motivational videos and materials. Not to mention, employees enjoy professional massages at work. In collaboration with external companies, tailored courses, workshops and coaching programs are available, and the company offers a subsidy to employees for language learning.



53 Pure Storage

U.S., 5,314

The positive company culture at Pure Storage is driven by hosting frequent company events. Work-life balance is prioritized, and employees are offered professional mentorship. Employees state that they feel positive about the management team and the peers they work with. The great pay and benefits don’t hurt either.



52 Gympass

U.S., 1,618

Gympass is reinventing well-being to be engaging and accessible. Employees love working with a global team in a high-growth environment. The leadership team is transparent and does its best to make sure both the customers’ and the employees’ wellbeing are prioritized.

54 King

ENGLAND, 2,000

King challenges itself to dream bigger in a seriously playful way. The management team is respectful and prioritizes taking care of staff. Employees enjoy the high-energy, high-growth workplace and the opportunity to be around amazing, like-minded individuals.

55 GWI

ENGLAND, 585

GWI’s mission is to help humans understand each other everywhere. The company values teamwork and supporting one another. The culture is well-liked among employees and creates a positive outlook. Employees love that it is a quickly growing business with great potential.

56 DataArt

U.S., 6,000

DataArt is a global software engineering firm that takes a uniquely human approach to solving problems. Employees enjoy watching and creating the technological progress happening at DataArt. It is a people-first organization with the potential to learn and grow within the company.

57 Altair

U.S., 3,087

Altair welcomes, regularly supports and funds experiments stemming from employee ideas—even celebrating failures. Managers give employees transparent feedback, coaching and mentorship, and discuss career aspirations. Altair understands that empowering individual voices encourages an entrepreneurial mindset and strives to increase Black/African American and women employee and executive representation and initiatives designed to attract, retain and promote women and Black/African American employees at Altair.



ALTAIR

58 Day Translations

U.S., 80

Day Translations has always been a fully remote company made up of people and cultures from all over the world. It uses an online platform called Gather for an annual event and people use it to meet, collaborate and play games. Employees are encouraged to share their thoughts and opinions. In return, the company is transparent. It also offers interdepartmental training.

59 Ceridian

U.S., 8,500

Ceridian's hybrid teams from all over the world enjoy cultural learning opportunities and cross-functionality to volunteer for opportunities to make work and life better. Ceridian is committed to equity. Culturally underrepresented employees are paired with executive mentors to assure career growth. Internal studies into gender and ethnic equality result in compensation reparations.

60 Mitgo

GERMANY, 727

At Mitgo there aren't a lot of rules. Employees have the independence to make decisions and even mistakes. Employees created the company values. New joiners are assigned someone from a different department to teach them the culture. All jobs are offered internally first to give employees a chance to grow and change roles.

61 Milliken & Company

U.S., 8,000

Milliken & Company fosters a culture where everyone is valued, respected and engaged. Its global recognition program is offered in five languages to respect its international team. It offers continuous learning, peer mentorship and community involvement, like the annual Volunteer Olympiad where associates get time and corporate support to focus on the community.

62 Portão 3

BRAZIL, 40

Portão 3 offers a flexible benefits package, transparency and a variety of development opportunities. All employees are encouraged to set personal and career goals reviewed regularly with managers. It fosters a sense of employee ownership and investment in the company's success and conducts climate surveys for continuous improvement. Teams can organize an annual all-inclusive resort trip to connect and celebrate.

63 Eaton
IRELAND, 91,000

Employees who win hackathons at Eaton present their solutions to leadership which drives innovation for the company. Eaton's Stretch Assignment Marketplace program provides development opportunities worldwide where employees work on Eaton projects while learning and networking. Eaton's environmental commitments—like reducing carbon emissions and lowering greenhouse gases—led to 86 percent of employees reporting being proud to work at Eaton.

64 Kaplan
U.S., 4,200

Working for Kaplan means lifelong learning. Employees gain access to individual development plans; a competency-based on-demand development library; in-house technical, soft skills and professional training; a month-long virtual DevelopU conference and access to Kaplan and partner educational products.

65 Deluxe Media
U.S., 4,500

Deluxe values diversity in its work and its people. It is also proud to be environmentally conscious, offsetting travel emissions, using clean energy, giving incentives for electric car use and encouraging partners to be more sustainable. Employees are excited to go to work because while the dynamic nature of the work means they don't know what each day will bring, they know they will learn something new.

66 Zebra
U.S., 10,500

Zebra offers all employees the freedom, tools and opportunities to define and build their own unique professional careers. Zebra's Go the Extra Mile program rewards employees with points to be redeemed from a catalog of products and experiences.



67 Watco

U.S., 3,087

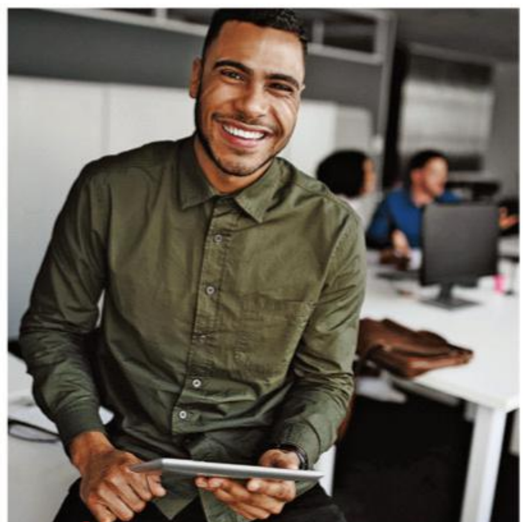
Watco employees meet daily to review the plan, outline action items and collaborate across departments to accomplish their goals. Industry partners repeatedly acknowledge Watco's leaders for their achievements, influence and expertise. Team members move around the company to gain skills and knowledge and often are promoted within the company. Managers conduct "stay" interviews to learn what Watco is doing right and where it can improve.

68 Compañía Española de Petróleos, S.A.U. (Cepsa)
SPAIN, 10,310

Cepsa is a nearly century-old company pioneering a sustainable future—a mission employees feel gives them real purpose. The company has launched a suite of values to elevate the vision further. While it has been supportive of the shift toward hybrid work, it believes the ultimate way to move people's hearts is to get them together, so the company has kept all its physical space.

69 Distillery
U.S., 420

Culture is important at Distillery. There are weekly engagement events, quarterly tech talks and celebrations. Slack channels, an intranet, Google Meet and mural boards offer opportunities for internal communication and collaboration. The organization offers performance bonuses, unlimited PTO and a flexible work environment. There are clear goals and expectations with rewards charted by career pathing, communications-trained management and regular constructive feedback.



70 DevSkiller

POLAND, 46

DevSkiller is a mostly remote company, where the many cultures of its employees give them different perspectives and ideas. Differences in opinion are seen as a strength rather than a weakness. Its values were created bottom-up by asking employees. They eat their own dog food, using their product to assess and map employees' skills and identify where people need to develop.

FROM TOP: JENNYWHEAT/WATCO; CHRIS JOUBERT/DEVSKILLER

71 Conduent
U.S., 62,000

Conduent projects involve cross-functional teams across geographies, rallying around a mantra of "one team, one mission." Associates engage with global colleagues, ask questions and share stories, ideas and recognition. "Clarity of direction" is consistently a highest-scoring category in Conduent's annual engagement survey—associates understand the role they play in shaping the company's future. New hires are accelerated through application development roles to fast-track their career.

72 Grey Group
U.S., 3,200

Grey Group's "5Things: This Week in Social" podcast celebrates social media and how it impacts brands. Due to mentorship for women and people of color, management training and unconscious bias and bias in recruitment programs, women are more than 50 percent of global staff and almost 40 percent of leadership.

73 Apex Global
GUATEMALA, 16,000

Employees are attracted to the refreshing atmosphere found at Apex Global. The culture is built around fun and is upheld by frequent cocktail hours, coffee chats and cultural events. Apex Global values respect, safe communication and growth and has a heavy focus on impact. Employees are empowered to identify problems and create solutions.

74 Medallia
U.S., 2,500

Employees at Medallia provide feedback to leadership through always-on technology and a platform for submitting their ideas. It hosts a week for giving back, allowing employees to use paid volunteer time in their community. Medallia's tuition assistance program provides $15,000 to employees toward obtaining a degree. Medallia is a Fair Pay Workplace that is committed to delivering true pay equity and transparency.

75 Italgas
ITALY, 4,000

Italgas listens to its employees, implementing a referral program to reward them. It offers every open position internally first, and it launched a digital ambassador's program, a reverse mentorship where the newer, younger employees help the older employees with new technology. To benefit both its people and the planet, the company shuts down the office every Friday to cut down CO2 emissions.

76 Certified Konsult
INDIA, 35

Certified Konsult stands by trust, quality and client satisfaction. The organization values integrity, teamwork, accountability and innovation. Open dialogue and respect create a collaborative environment. Career plans and performance management help employees grow professionally. Employees love the opportunity to make a difference and actively work toward building a better society.



77

IPSY
U.S., 532

IPSY employees are rewarded with the opportunity to inspire their customers to express their unique beauty. IPSY is made largely of women and people of color and has values of inclusivity and respect at the core of its operations. The organization shows its commitment to its employees by frequently recognizing top-performers, offering multiple wellness programs and providing company stock-sharing options.

IPSY



78 Zappi

ENGLAND, 325

Zappi matches random people for virtual coffees. Friday all-hands meetings include a DJ, lightning talks and a kudos board to share positive feedback. Zappi pays for teams to travel together regularly for social events for bonding. Before making any decision, policy requires consulting with everyone impacted and experts. They offer a stocked kitchen, live music, Ping-Pong and more.

79 Quantexa

ENGLAND, 650

Quantexa's global team works in a hybrid environment empowered by technology like Q-Net, a virtual place where colleagues collaborate; offices with 360-degree video conferencing cameras for effective hybrid meetings and a buddy system that embeds new hires in company culture. Quantexa offers mentorship programs, study support funds, tailored e-learning courses and knowledge-share communities focused on data and technology to give employees support for career growth.

80 Montea NV

BELGIUM, 45

Montea's promise to employees is to make them grow. Being a very small company enables it to tailor individual development, linking employee growth to strategic objectives and addressing any gaps. It offers a range of learning opportunities, including classroom training, on-the-job projects, e-learning, mentoring, coaching and networking opportunities. It aims to have long-term partnerships with employees, so everybody in the company is a shareholder.

81 Teleperformance

U.S., 410,000

Teleperformance allows employees to live anywhere and connect with supervisors and colleagues via Cloud Campus. Ready for promotion? Around 70 percent of Teleperformance promotions are internal employees. Teleperformance hosts a global annual talent competition, For Fun Festival, where employees and their families share their passion for music, art and dance.

82 MBH Bank

HUNGARY, 9,500

MBH Bank, combines three banks with a fresh strategy and culture. It has been recognized as a supportive workplace for women and families, thanks to the "Baby+" program and support for maternity and paternity leave. A performance management system aligns bonuses and retention with desired behaviors and values. The "High Potential Program" and MBH Academy cater to employee development and mental health, ensuring professional and personal growth.

83 Amplifon

ITALY, 19,350

Amplifon provides an invigorating and dynamic work environment, driven by a mission to save lives. Its culture combines the advantages of a multinational firm with the agility and closeness of a startup. Valuing employees as its greatest asset, the company offers wellness initiatives, training, travel prospects and yearly recognition. The CEO and majority shareholders prioritize employee well-being, even if it means financial sacrifices.

84 Ingemark

CROATIA, 50

Ingemark attracts candidates with its tech stack and remote work opportunities. Responding to employees, it transformed its workspace to prioritize productivity from home, adapting offices for collaboration. Each employee has a personal mentor and a tailored curriculum. Regular one-on-one meetings focus on values. Quarterly "Open at Ingemark" events address concerns. Changes include a 38% salary hike to stay competitive in Croatia.

85 Mohegan

U.S., 12,000

Mohegan offers opportunities for voices to be heard by conducting team member engagement surveys, staff meetings, town halls and regular team member updates as well as Kaizen events and breakfast with the president. Mohegan offers transfer and promotion opportunities, stretch assignments, tuition reimbursement, in-house training programs and off-site seminars to support employees in making career choices compatible with one's unique skills, knowledge, personality and interests.



FROM TOP: ZAPPI; MOHEGAN



Denis Ferreira, CEO

86 Alares Internet

BRAZIL, 2,100

Alares is undergoing a cultural shift, emphasizing autonomy and open communication to foster employee expression. In 2023, collaborative goals replaced individual ones, prioritizing teamwork. Performance evaluation now focuses on team achievements, not individual accomplishments, promoting collective thinking. The company invests significantly in leadership and career development programs to ensure internal promotions. While English proficiency is not required, an English program is offered to all employees.

87 IPC Systems

U.S., 1,060

The offices at IPC Systems are collaboration hubs by aesthetic and functional design, but individual ambition is encouraged and heavily rewarded through public kudos and bonuses. Employee growth is supported through tuition reimbursement and access to Babel, LinkedIn Learning, workshops and certifications. Mentorship frames the culture as employees work across cultures and markets to make systems changes.

88 Adikteev

FRANCE, 90

Adikteev offers flexibility, with weekends starting Friday at noon and a 35 percent fully remote workforce. It places an emphasis on corporate social responsibility around three employee-chosen pillars: Environment, Education and Diversity & Equal Opportunity. Every process at the company involves the values, including recruitment and assessments. Every year 15 to 25 percent of employees receive some kind of promotion and they facilitate horizontal moves.

89 PriceSmart

U.S., 10,880

PriceSmart's strong employee engagement programs recognize and celebrate personal achievements and milestones and encourage recognition of attainment of team goals and aspirations. PriceSmart provides an international Employee Assistance Program to support employees' physical and mental well-being.

90 flydocs

ENGLAND, 330

Flydocs' CEO André Fischer says his core ethos of "It's a people-first business, always!" drives every single decision. The Chat Space forum he initiated connects leadership with employees to informally listen and learn from each other. Less structured workspaces allow teams to check in, share experiences and also to have some fun.

91 Vantage Risk Companies

BERMUDA, 250

Vantage Risk Companies is a start-up that doesn't pressure employees to overextend themselves. Instead, it has partnered with Mindshare to assure sustainability and train management to recognize and prevent irregular work hours or performance that may be mental health decline indicators. All-hands meetings mean every employee contributes to company growth and sees themselves in the cascading milestones.

92 Bedford Consulting

ENGLAND, 111

Bedford Consulting's employees represent over 27 nationalities and 31 percent are women. This diverse and inclusive company asks employees to contribute to blog posts and videos with their own opinions and ideas. Employees enjoy coffee roulette, which randomly pairs up employees for 15-minute non-work-related chats, plus payday pub visits, BBQs and holiday visits.

ALARES INTERNET

93 Amdocs

U.S., 31,000

Amdocs knows employees are holistic individuals with needs and purpose, so it has committed to development, balance and diversity. Employees access meditation, yoga and cooking classes. Life balance is supported by unlimited PTO and five paid hours a month to spend on whatever is most important to them. Not just granola hippies—also successful career opportunities with 40 percent upward mobility last year.

94 Bristlecone

U.S., 3,000

Bristlecone is a high-engagement company with strong connections between employees and managers. Employees value creating positive change and being role-model corporate citizens. Community is built around volunteer days, a focus on sustainability and giving kudos. There is a culture of continuous learning and active listening with an expectation of a safe workplace where everyone has the time to speak and be heard.



95 Pattern

U.S., 310

Employees are constantly empowered by Pattern's CEO to "go do something smart" and figure out what that looks like for their function. The CEO models balancing work and family—it's not uncommon for this founder and CEO to excuse himself from a meeting that has gone a bit over to attend a family event.

FROM TOP: BRANDON STENGEL; SCOTT DAVIS



96 Bunge

U.S., 23,000

Bunge's formal organization structure is augmented with informal networks committed to working across business units, geographies and functions. Employee resource groups have executive sponsorship to ensure all views are heard. Executives also encourage employees to connect directly to them.

97 Wynn Resorts

U.S., 15,242

Wynn Resorts offers employees tuition and seminar reimbursement, scholarship programs for employees and their family members, free leadership and development classes, citizenship classes and paid naturalization costs, paid parental leave and new parent incentives and immediate vacation and benefits. Wynn Resorts also rewards employees with frequent giveaways including paid trips, cash prizes, electronics and stays with dining at their resorts.

98 Everise

U.S., 13,699

With 80 percent of all positions filled internally, there is always the opportunity for career growth at Everise. Employees' career growth is supported by mentorship, continuing education, tuition reimbursement and a global exchange program. Everise listens to employee feedback through regular employee surveys, mentorship programs, employee huddles and virtual town halls with executive leadership.

99 Greif

U.S., 12,201

Employees in each location feel connected to the mission, values and goals so much that families tend to work for Greif spanning generations. Leadership meets with employees at each location on a quarterly basis, always welcomes employees to submit ideas to their innovation hub and each receives personalized development plans and resources from Greif University plus company-sponsored education.

100 FLEETCOR

U.S., 8,400

FLEETCOR focuses on employees through recognition programs, benefits that fit their needs, flexible work schedules, resources for personal development, a peer-to-peer recognition program and communication tools that allow people to bring their authentic selves to work. FLEETCOR offers extended time off, free virtual exercise classes with certified trainers and subsidized memberships with gyms and weight-loss programs.



The New Era of Food and Agriculture

Lead Writer: Konstantin Tumanov **Editor: Lewis Hart** **Graphic Design: Alexandru Darie**

Here is some food for thought: the world will need 70% more food by 2050, when our population is set to reach 10 billion. This means that we will have to produce more food in the next 40 years than in the previous 10,000 combined. At the same time, the food industry presently accounts for 26% of greenhouse gas emissions, and agriculture uses up to 70% of the global freshwater withdrawals. If we are to preserve our planet, we will have to produce more with less.

The task before the sector is enormous. As the President of Bayer Crop Science Division Rodrigo Santos summarizes: "Over the last two decades, we saw a major revolution with increasing yield and productivity. But in the next two decades we will witness two simultaneous revolutions and with that a major transformation of agriculture: we need to produce more food to meet the 70% rise in demand while – at the same time - fighting climate change." As if that were not enough, this twofold hurdle is aggravated by recent crises, such as the COVID-19 pandemic, which perturbed global supply chains, and Russia's illegal invasion of Ukraine, which caused spikes in fertilizer prices, resulting in increased food insecurity around the world. Simultaneously, long-lasting grievances, notably aging labor force and food waste, persist. The good news is that major players in the sector, from farmers to flavorists to engineers, are all in a state of restless productivity, conscious of what lies ahead. We spoke with more than 100 of these industry leaders, and here we report on their latest work to feed the world and conserve the planet.

In This Report...



HON. MARIE-CLAUDE BIBEAU
| MINISTER OF AGRICULTURE AND AGRI-FOOD OF CANADA

Canada is a global leader in agricultural innovation. New technologies such as genome editing, robotics and AI offer potential solutions while addressing key challenges, such as labor shortages, supply chain resilience and climate change.



BETH BECHDOL
| DEPUTY DIRECTOR GENERAL, UN FOOD AND AGRICULTURE ORGANIZATION

Today, 222 million people across 53 countries are classified under IPC Categories 3 through 5, namely Category 3 – crisis; Category 4 – food-related emergencies; Category 5 – famine. These are the highest figures we have seen since we started reporting.

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LAURETTE RONDENET | OWNER AND CEO, EDLONG & PRESIDENT, FEMA

The real question here is: how can we become the food heroes of our generation? What legacy are we going to leave behind? How will we feed the world and protect the Earth's resources? The key mindset is to remain open to all kinds of solutions, while being careful not to inflict further damage.

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Ready to Regenerate

Producing more while preserving the environment requires new ways of thinking about our food, and one of the most promising trends in that sense is the concept of regenerative agriculture. "This is a new movement - it takes the foundations of traditional organic agriculture, and layers on top new standards for fair labor, animal welfare, as well as quantifying the benefits good organic practices have in aiding soil health and soil carbon sequestration," says Jyoti Stephens, VP of Mission and Strategy at Nature's Path Foods, a Canadian organic cereal producer.

Russell Stokes, CEO of KIND Snacks, adds in the same vein that his company plans to source 100% of the almonds in their snacks from regenerative farms by 2030: "We partnered with one of our largest suppliers to develop a three-year pilot program, where we are testing various regenerative practices on a 500-acre plot. The goal is to create a set of guidelines for our suppliers so that they can farm almonds using only regenerative practices, such as employing green fertilizers and less water inputs." Emphasizing the importance of regenerating soil, Craig Stevenson, CEO of Lundberg Family Farms, tells us: "We have prioritized the health of the soil, and healthy soil can be more resilient in the face of climate change than soil that has been degraded by conventional farming practices."

Regenerative agriculture, however, cannot be envisaged without the right incentives for farmers. More than anyone, farmers are deeply committed to conserving their land and protecting the environment, as their sustenance depends on it. But if growers are to transition to a greener model, given historically low margins, they will need more support to make it happen.



Among the most encouraging developments in that sense is the emergence of a market for carbon credits in the industry. "The carbon market has allowed for an alignment between advocates of the ESG framework and conservation-minded farmers, who are mutually interested in reducing crop inputs, GHG emissions, and soil erosion. And it has done so by enabling farmers to receive payment for reinventing their production models," the owner of Blue Diamond Farming Company, Ben Riensche, highlights.

To make this a reality, businesses have started offering solutions for farmers to earn more from carbon-smart practices. Ron Hovsepian, CEO and President of Indigo Agriculture, exemplifies: "Our Carbon by Indigo program pays participating farmers 75% of the value of the carbon credit, whether they are based in the U.S. or are a smallholder farmer in India. To date we have generated over 130,000 high quality carbon credits, and we aim to grow on that substantially."



DAVID CHAVERN | PRESIDENT & CEO, CONSUMER BRANDS ASSOCIATION
Consumers want a sustainable model to deliver their three basic needs: good-quality nutrition, convenience, and value.



CARRIE VOLLMER-SANDERS | SUSTAINABILITY DIRECTOR, U.S. FARMERS & RANCHERS IN ACTION
Farmers and ranchers must have a voice in discussions surrounding the environment because growers are at the heart of climate solutions.



What is the legacy you want to leave behind?

Owning Your Legacy is a podcast for those seeking inspiration on leadership and what it takes to courageously leave your mark on the world.

Join Laurette Rondenet, Owner & CEO of Edlong, an innovative, globally-recognized food flavoring company, as she hosts intimate discussions with fellow leaders, visionaries, and trailblazers who are making an impact in their space.

LauretteRondenet.com

Made of More™

NOVUS is the intelligent nutrition company that creates innovative solutions and services to give farmers the ability to do more with less. NOVUSINT.COM

NOVUS

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RODRIGO SANTOS | PRESIDENT, BAYER CROP SCIENCE DIVISION

"Over the last two decades, we saw a revolution with increasing yield and productivity. But in the next two decades we will witness two simultaneous revolutions and a major transformation of agriculture: we need to produce more food to meet the 70% rise in demand while – at the same time - fighting climate change.

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Similarly, Daniel Ryan, CEO of CIBO Technologies, is focused on connecting more farmers to grower-incentive programs. He tells us: "Our software platform allows growers to upload field boundaries in the program engine and instantly see programs and incentives for which they are eligible. These programs may be sponsored and funded by private companies in the form of Scope 3 emissions reductions, carbon project developers, or by governments."

New developments in our understanding of the soil's composition can also help farmers take better care of it and have better data on the carbon they sequester into the soil. "Through our sustainability rating, we offer customers data on carbon and integrated genomics-chemistry on biodiversity, impact on water and resource usage – the latter two are particularly important for optimizing fertilizer use to minimize pollution," says Poornima Parameswaran, CEO of Trace Genomics, a company offering precision soil analysis based on genomics.

Animals and Alternatives

The future of animal agriculture is amongst the most pressing matters in the industry. On the one hand, about 16.5% of GHG emissions come from animal farming, which is one reason for the rapid development of alternative protein. On the other hand, rising incomes in developing countries means that traditional meat and dairy consumption is far from outdated.

When it comes to traditional protein sources, animal nutrition is key to achieving sustainability. As Dan Meagher, President and CEO of Novus International explains: "The ever-growing global demand for food can only be met if all the players in the food system participate with solutions." Novus, an animal nutrition company, develops products that support health and reducing environmental impact: "Our technology has direct effects on the environment in that we can produce the additives directly into grains, like corn, that make up the bulk of an animal's diet. By eliminating some steps in the nutrition production chain, we can feed animals in a way that decreases the carbon footprint." By improving animal health, such practices can also reduce reliance on antibiotics.

Automation equally has a twofold effect on animal agriculture: improving sustainability and reducing the need for labor. André van Troost, CEO of the Dutch dairy machine and robots manufacturer Lely, tells us: "Our products robotize a variety of tasks carried out in the dairy barn, including milking, feeding, and manure-cleaning. We have machines which mow and transport fresh grass into the barn for feed, and robots that work on the farm to reduce ammonia and nitrogen emissions. These innovations reduce the number of



full-time employees needed for barn tasks and enable farmers to spend more time ensuring that individual cows are well nourished."

Concurrently, there is excitement on the alternative protein front. We spoke to a number of companies using fungi as a source of alternative protein, which turns out to be particularly viable due to its natural potential for scaling. The CEO and Co-Founder of Nature's Fynd, Thomas Jonas, tells us: "The proteins in fungi are highly digestible, similar to beef, as well as rich in protein. They also contain all the essential amino acids." To exemplify the unique scalability potential, the CTO and Co-Founder of Meati, a producer of alternative meat based on mycelium, Justin Whiteley quantifies: "Right now, in only the first phase of our new Mega Ranch, we can make about five cows of mycelium in three days from a teaspoon of spores.

16.5% GHG

of all GHG emissions come from animal farming

Once the ranch is fully commissioned, that equivalent potential will be more like hundreds of cows, which gives you an idea of how fast we are able to grow."

The flavor industry works alongside both traditional and alternative protein producers. "A substantial part of our efforts, probably more than 50% of the projects we are currently working on, are in the alternative dairy space. Interestingly, even the big dairy companies have started making plant-based products now, " explains Laurette Rondenet, Owner and CEO of Edlong, a producer of dairy flavors. Despite these trends, Rondenet echoes a message we have heard from various industry leaders: "I am convinced that this should be an 'and' conversation... Dairy and alternative dairy products should complement each other, rather than be in competition." At any rate, flavors are set to play a pivotal role in satisfying consumers.

Since becoming the President of the Flavor and Extract Manufacturers Association, Rondenet's mission has been to educate that the flavor industry is a sine qua non of food production: "All food needs flavor. There are less than 600 flavorists in the entire world, which means there are great opportunities for kids in STEM to find a home in our industry."

Greener Ag



HUGH WELSH | PRESIDENT, DSM NORTH AMERICA
Part of that movement to sustainability is ensuring we use less antibiotics and create more antimicrobial products and practices. One way to do that is through appropriate nutrition of animals.



NIELS PÖRKSEN | CEO, SÜDZUCKER AG
If production is to become more sustainable, it will be essential in the medium term to switch to biobased raw materials.

12.4% $36.6B

yearly expected growth of alternative protein market by 2029

Fertilizers Revisited

Fertilizers are indispensable: half of the world's population relies on them to get food. Russia's invasion of Ukraine, however, has led to a dramatic surge in traditional plant nutrient prices, making it difficult for many and virtually impossible for some farmers to carry on with their regular business. Nitrogen-based fertilizers represent the largest segment of the market, whereby the predominant raw ingredient is natural gas, which explains why Russia supplies 20% of the world's fertilizers. An additional problem facing the sector is that the carbon emitted during the full life cycle of fertilizers is substantial and contributes approximately 5% of all GHG emissions.

Giants of the fertilizer industry are well aware of the challenges ahead. Ahmed El-Hoshy, Group CEO of OCI, summarizes the dilemma: "Knowing that your company is providing the essential product (nitrogen fertilizers) to feed around 4 billion people – half the world's population, is highly fulfilling. But agriculture accounts for nearly 30% of GHG emissions and, although it is no easy task, we







ROD VAUTIER | PRESIDENT, BIOWISH TECHNOLOGIES

Today, as a result of our decade-long research program, farmers using BiOWiSH® enhanced fertilizers can obtain the same crop yield using between 10 to 20% less fertilizer than their peers, or an average 7.7% yield increase when maintaining their current fertility program.

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must find the best ways to decarbonize this industry in an affordable way - without increasing the price of fertilizer and therefore the price of food too much."

Bio-fertilizers have been developed for years, but not until the war in Ukraine and the consequent contraction of supply of traditional formulations did they attract so much attention. BiOWiSH is a company offering a solution that creates a symbiotic relationship between the plant and its microbiome, boosting its growth. As its President, Rod Vautier, explains: "Fertilizers exist to disperse nutrients onto the soil and then into the plant. The science here is a bit complicated but, essentially, we saw the potential for an entirely new way to improve nutrient uptake via leveraging the biotic synergy of these microorganisms with the native soil biology and the plant." Likewise, Ray Chyc, CEO of Azotic North America, totes the benefits of utilizing nitrogen-fixating bacteria as a solution: "With our product, nitrogen is retrieved directly from the air, which can translate to yield increases of between 0%-20%, or on average eight bushels of corn per acre. Moreover, we know that our solution does not just capture nitrogen from the air, but also brings in CO_2 to the plant in order for the plant to make that extra yield."

Similar microbial solutions might be propagating but, as Ben Riensche cautioned from his family farm, traditional fertilizers are still far from being replaceable: "For us, it will be a decade-long experiment to see if we can find ways of maintaining fertility and productivity while replacing conventional fertilizers with biofertilizers." Rather, as Rod Vautier adds, these products are to complement traditional applications, improving yields and sustainability: "BiOWiSH is at the forefront of biostimulants having developed a technology that can be seamlessly integrated into current agricultural practices. Because the technology is coated onto the fertilizer the farmer is already using, it requires no additional on-farm processes to gain the benefits of the microorganisms."



CHRIS JAHN | PRESIDENT, AMERICAN CHEMISTRY COUNCIL (ACC)

Chemistry is the science behind sustainability. Ending hunger and addressing climate change issues also pertain to our domain since there are so many applications where we can contribute.



AHMED EL-HOSHY | GROUP CEO, OCI

The war in Ukraine subdued the fertilizer demand in 2022 and led to increased grain and gas prices. The conclusion from this disruption is that the green transition needs to not only focus on sustainability but also on cost competitiveness and energy security.

Beyond a mere momentary fashion, the movement toward bio-fertilizers and other biological solutions indicates a more global revisiting of plant health. Fertilizers help crops grow faster, but crops also need protection from pests, diseases and the elements. Erik van den Bergh, Managing Director of Van Iperen International, is a producer of a new breed of specialty fertilizers and biostimulants: "In a nutshell, biostimulants help crops overcome certain stress conditions like extreme drought or soils with a high pH. Even in very fertile conditions, crops always have certain periods of stress and boosting their metabolism could improve the yield and quality."

Local for Local

The pandemic demonstrated the advantages of shorter supply chains. In the words of the President of DSM North America, Hugh Welsh: "Regionalization gives you protection not only against supply chain disturbances, but also currency and climate risks while enabling access to markets at sufficient scale." More than a security question, localized production is becoming a trend for ecological reasons, and also since food waste is a function of the distance between the supply and demand sides. As Martin Brock, CTO of Cambridge Consultants, puts it: "The big secret is that we can already produce enough food. The problem is that a large chunk is produced inefficiently, or is wasted or not delivered where it is needed."

Amongst the surest ways to reduce food waste, shorten supply chains, and minimize the environmental footprint from transportation is to rely on local-for-local production. The CEO of Jiffy Group, Thorleif Hals, insists on the promises that indoor farming, or CEA (controlled environment agriculture), holds for transforming agriculture into a more localized practice. Hals tells us of Jiffy's project in Qatar that demonstrates the potential of CEA in harsh climates as compared to outdoor farming: "The results were 5 kg per sqm outdoors and 100 kg per sqm indoors; moreover, the water and mineral consumption indoors was 99% less than that outdoors. In other words, because of indoor farming they can now have local tomato produce in Qatar. That signifies a new era."

Greenhouses (the most common form of CEA) are nothing new, being a centuries-old Dutch invention. Yet, new technologies have transformed the way food is grown indoors today, allowing for greater produce, more efficiency and climate and geographical independence.



HARALD DUTZLER | PARTNER, PWC

Today, a variety of small businesses, companies, and even countries are reviewing their impact and footprint in the global food supply chain, particularly regarding topics like localization and self-sufficiency.

When we speak of the smart farm of the future, the Netherlands is still at the forefront. Dirk Aleven, the CEO of FoodVentures – a company exporting innovative indoor farms to developing countries, - shares: "It baffled me how the Dutch greenhouse concept was so well established in the Netherlands, but quasi-unknown in many other markets. Having witnessed how a local Ukrainian grower was producing roses at 70% of the capacity found in the Netherlands and was still being profitable, I immediately saw the huge pool of opportunity in these frontier markets."

Referring to the great potential for CEA to address growth in food demand, Wouter Kuiper, CEO of glass greenhouse builder KUBO, envisions: "CEA allows us to grow between 20 to 35 times more produce per square meter than outdoor farming. If you let that figure sink in, you quickly realize the massive long term efficiency it can bring." One bright innovation in the indoor farming space is the introduction of high-tech LED lighting. Alexander Gerfer, CTO of Würth Elektronik, explains: "Instead of using the powerful light sources that imitate the sun inside greenhouses, it would be much more efficient and sustainable to find out the precise light



WOUTER DUIJVESTEIJN |
OWNER,
BEYOND CHRYSANT

At Beyond Chrysant we are always looking to the future, and we implement the latest technologies in an eco-friendly way. We use GreenSwitch from Van Iperen International because it's the perfect match with our vision.

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CEA allows us to grow between 20 to 35 times more produce per square meter than outdoor farming. If you let that figure sink in, you quickly realize the massive long term efficiency it can bring.

WOUTER KUIPER | CEO, KUBO

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intensity needed by plants in different growth stages. Cultivation with light-emitting diodes saves around 70% energy and minimizes CO_2 emissions by up to 90%."

Perhaps the most ambitious segment of indoor agriculture is vertical farming. Its aim is to optimize plant growth by growing crops vertically, saving space and water, and not using pesticides, soil and sun. David Rosenberg, Co-Founder and CEO of AeroFarms, shares his vision: "Vertical farming holds immense opportunities, and it can span several areas of food production. In our case, we decided to focus on leafy greens where we have up to 390 times greater productivity annually and use up to 95% less water vs. traditional field farming. But the vision is to have a platform that has high utility across many different plants." Many vertical farms now integrate sophisticated technologies, data learning and AI that allow for greater automation and the precise application of crop nutrients.

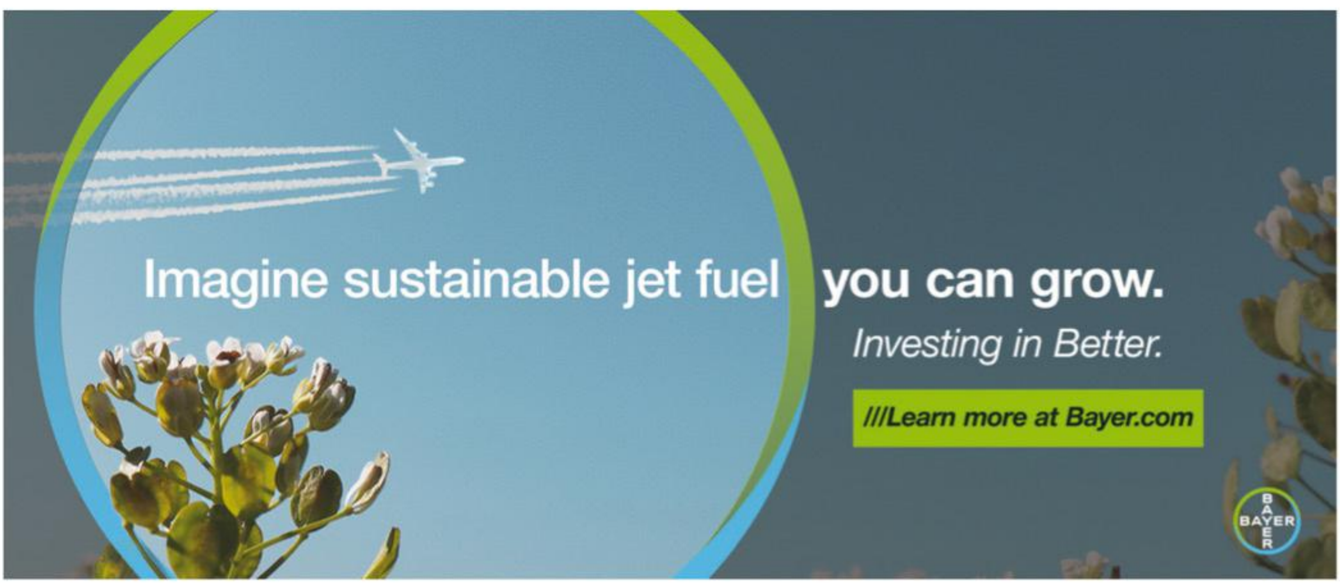
Nevertheless, vertical farming is still a nascent industry, experiencing profitability issues due to its considerable energy consumption and substantial capital costs. Many, therefore, see vertical farming as a complement rather than a supplement to horizontal CEA. As things stand, agriculture uses around 50% of all habitable land. Mirjam Boekestijn, GM of Dutch Greenhouse Delta tells us: "Depending on the climate, there are different solutions and types of installations to create the best indoor conditions. In Singapore, where almost no agricultural land is available, vertical farms are a viable option to produce local foods, while in Kazakhstan, where there is a lot of land available, indoor farming is not necessarily the best direction."



BRADLEY NATTRASS | CEO, URBAN-GRO
The technology used in urban greenhouses is mainly concentrated around proximity and full automation, and it ranges from small robots that move the proprietary racking systems around the facility to pest management done exclusively through biological insects.



BARRY MURCHIE | PRESIDENT & CEO, TRULEAF SUSTAINABLE AGRICULTURE
Vertical farming is a capital-intensive venture, so the fact that we had the partners available to be able to build the infrastructure to do this properly made me push all my chips to the center of the table and say "I am in! "



The Agritech Edge

As curious as it may sound, the new devotion of many tech entrepreneurs is agriculture - a trend making the sector look increasingly futuristic. Humanless vertical farms, AI adjusting water and nutrient inputs for each individual plant, or drones hovering over crops to closely monitor their development - these are just a few details of the picture that innovators in the agri-tech space paint as the farm of the future. Whereas some of these innovations are still at an early stage of testing, others, like autonomous tractors or data analytics are already in established practice.

Traditionally marked by uncertainty, agriculture can be revolutionized by precise information. The advent of agri analytics, therefore, is most welcome. James Heneghan, SVP of Gro Intelligence, says: "We have been gathering our data from quality public sources but we are also licensing it from vendors or private sources. Some of the yield forecasts that we offer can be up to ten months ahead of official government statistics."Another analytics company chooses space as its observation point: "Agriculture is an omnipresent field around the world and one that could greatly benefit from a planetary perspective. If we were to look at the planet as a living organism, the only way to take care of it would be to measure its vital signs in a holistic manner," tells us Artiom Anisimov, CEO of EOSDA, who uses satellites to observe changes in climate and agri-variables. Indeed, one of the major issues with similar high-tech solutions remains their price and inaccessibility for most small-scale farmers.

Smart Farming



THIERRY KLEIN | PRESIDENT,
BELL LABS SOLUTIONS RESEARCH,
NOKIA BELL LABS

The smart farm of the future means being able to know everything that is taking place in the farm, and then having the corresponding decisions implemented in a productive, sustainable and safe fashion.



JOHN RAINES | PRESIDENT,
TELUS AGRICULTURE AND CONSUMER GOODS

In production agriculture, you need to be able to assess performance and crop needs in real time. The trick is to make all these tools user-friendly.

> Our most important output is our graduates; they are key to enabling the research engine to remain strong, key to meeting the labor demands in the modern era of agriculture and key to continued innovation for the sector.



RENE VAN ACKER | PROFESSOR AND DEAN, UNIVERSITY OF GUELPH

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UNIVERSITY of GUELPH

ONTARIO AGRICULTURAL COLLEGE

Turning our attention back to the ground, autonomous agri vehicles are gaining momentum as they can boost farmers' profitability and reduce the need for manual labor. Jorge Heraud, VP of Automation & Autonomy at John Deere, explains "We started by automating tillage, one of the easiest operations on a farm where the farmer is preparing the ground for planting by simply driving back and forth, covering the entire field. We took already existing technologies, like to automatically steer the vehicle and added six pairs of cameras to create a 360° view to detect obstacles." Praveen Penmetsa, CEO and Co-Founder of Monarch Tractor, mentions that "less than 42% of U.S. farmers run a profitable business since they are stuck between meeting emission and chemical regulations, and doing so with a limited workforce. Our driver-optional solution allows farmers to run up to eight tractors at a time."

The future of agriculture hinges first and foremost upon the new generations of farmers and innovators who will choose to commit themselves to this challenging but rewarding sector. "One of the greatest challenges for the sector is finding enough highly qualified people. We need to recruit far beyond our traditional pool of people who, like me, grew up on a farm; that pool is dwindling, and the general public has a notion about agriculture that typically does not go beyond farming," says Rene Van Acker from the University of Guelph. Yet, agriculture is now a high skills industry, with innovation transforming its every aspect. Precisely this, Van Acker hopes, can attract more young talent. At any rate, all the inspired voices and exciting developments brought to light in this report demonstrate that agriculture is not antiquated; it is teeming with life and fresh ideas.



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BETWEEN FOOD, FLAVORS, AND PEOPLE

Edlong Flavors congratulates our Owner & CEO **Laurette Rondenet** on becoming the 87th President of the Flavor and Extract Manufacturers Association.

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Protective Pup

Australian Shepherd

CALIFORNIA

Despite its name, the Australian shepherd is actually a descendent of dogs the Spanish brought to California in the 1500s. It gets its name from the New Zealand and Australian collies that were part of that group. This athletic dog gained popularity in the 2000s, but their herding instinct and need for consistent exercise has not been bred out, so it is important for humans to establish clear dominance, especially in homes with children. *(See #01 on following spread)*

No ‘Poor Unfortunate Soul’

Melissa McCarthy embraces the role of the sea witch Ursula in Disney’s live-action remake of *The Little Mermaid.* ▸ P.56



UNCHARTED

Dogs From Afar— The Best Dog Breeds for a Perfect Match

Dogs may be our best friends, but they can also serve as reminders of beloved far-off travels. Many dogs have their origins in surprising lands and were bred for specific purposes—from sheep herding to companionship. Knowing dogs’ global origins and personalities can help you understand your own pooch. And since having a dog is a big responsibility, if you’re ready to make the leap, be sure to do your research to ensure that that the breed you select is a good match for your living situation and lifestyle choices. —EILEEN FALKENBERG-HULL



Small Size, Big Personality

Chihuahua

MEXICO

(See #02 on following spread)

FROM LEFT: GETTY; CHRIS STEIN/GETTY; TOP RIGHT: GREGG DEGUIRE/GETTY



03

Independent Instincts

Catahoula Leopard Dog

LOUISIANA

This medium-build, short-haired dog breed is known for its wide variety of coat and eye colors. It is noted as being the only breed to have originated in the state of Louisiana. Its likely ancestor is the Beauceron, having been crossbred with Native American wolf dogs to aid early French settlers with swamp hunting. These dogs are known for their need for early training to break their independent, territorial instinct.

04

Cuddly Companion

Havanese

CUBA

The Havanese is the national dog of Cuba. It can trace its roots to the now extinct Blanquito de la Habana ("little white dog of Havana"), and further back to the island of Tenerife where it descended from bichon-style dogs. The toy breed is a true companion dog and thrives in social settings where it is around people all day long. It is noted for its lack of barking instinct.





01

Protective Pup

Australian Shepherd

CALIFORNIA

(See previous spread)



02

Small Size, Big Personality

Chihuahua

MEXICO

Based on DNA analysis, Chihuahuas are believed to be one of only two native American breeds to survive since pre-colonization. Explorer Hernán Cortés wrote that that he discovered the Aztecs raising and selling the little dogs for food. Today, they're known for being keen companions but display above-average aggression.

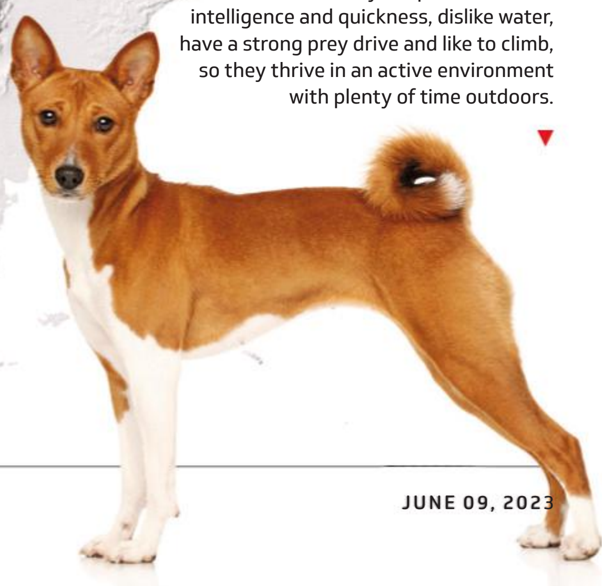
05

Quiet Sportsman

Basenji

DEMOCRATIC REPUBLIC OF THE CONGO

This hunting dog has its roots in the northeastern Congo region of Central Africa and is considered by experts to be a primitive-type breed—with a simple gene pool and longstanding lineage. Basenjis yodel rather than bark and lack a distinct odor. They are prized for their intelligence and quickness, dislike water, have a strong prey drive and like to climb, so they thrive in an active environment with plenty of time outdoors.



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01: GETTY; 02: KURT PAS/GETTY; 03: GETTY; 04: DOROTTYA MATHE/GETTY; 05: GETTY



07

Outdoor Adventurer

Finnish Lapphund

FINLAND

The medium-sized Finnish Lapphund has traditionally been bred to help manage reindeer herds and often live 12 to 14 years, or longer. They're known to be good companions for active families who enjoy outdoor activities as their coats are waterproof.

08

Devoted Dog

Black Russian Terrier

RUSSIA

Also known as the Chornyi Terrier, this breed of dog was created at the end of World War II by a Russian kennel for use as a working dog. Today, the breed is good for companionship, sporting, guarding or working needs. It's known for being obedient, with extraordinary stamina. These terriers are not inclined to make friends easily but are devoted and loyal to their owners.





10

Self-Grooming Screamer

Shiba Inu

JAPAN

Shiba Inus are known for their agility and hunting prowess. The dogs are noted for their independence and their need to stay clean, often self-grooming like cats do. Shibas, as they are called, are remarkably easy to housebreak, but—not fans of being grabbed or held—are prone to "screaming" when displeased.



06

Work Horse

Hungarian Mudi

HUNGARY

Closely related to the puli and pumi and known for being high-energy herders, mudi grow to just over a foot tall and just over 20 pounds. During World War II, much of the breed was killed off, but has since rebounded, gaining recognition as an American Kennel Club purebred breed last year.

09

Farm Helper

Australian Kelpie

AUSTRALIA

This sheepdog has a keen herding sense, often without guidance once trained. Like many Australians, the kelpie traces its roots back to Britain. Kelpies are agile and intelligent, requiring mental stimulation and physical exercise.



06: GETTY; 07: BIGANDT PHOTOGRAPHY/GETTY; 08: MAKSIM KAMYSHANSKII/GETTY; 09: GETTY; 10: ERIK LAM/GETTY



PARTING SHOT

Melissa McCarthy

FOR MELISSA MCCARTHY, PLAYING URSULA IN THE LIVE-ACTION REMAKE of *The Little Mermaid* (May 26) began with terror. "That song ["Poor Unfortunate Souls"] looms so large for me that if I can't do it, I shouldn't be doing it." Fortunately for us, she did do it—and did it well. That's partly because she saw Ursula as more than just a villain. "She's not just ostracized, she's isolated...She is such a complicated character." The animated Ursula was heavily inspired by the drag queen Divine, which made the character even more rich for McCarthy. "There has never been a world without drag. And I do not care to ever see a world without drag." Directed by Rob Marshall and with Halle Bailey as Ariel, McCarthy has nothing but praise for them. "He did this beautiful thing. He built the world we all want to live in. There's variety there. It's like everybody wins. Everybody has their seat at the table. Halle leads this movie with such strength. This isn't like girls need help from the prince. It's like Halle is charging to her destiny."



"That song looms so large for me that if I can't do it, I shouldn't be doing it."

How did you take being cast as Ursula?
I actually pursued it knowing that I don't have any business really doing this. But to get to play that part, I was like, I don't know if it's even appropriate, and I don't know if I can do the song, but I know her in my heart.

How do you prepare for the singing?
It was so far beyond terrifying. I started with Eric Vetro, who is everybody on Earth's vocal coach. I went for months and finally he's like, "Well, you're trying to sing well as Melissa." So he would have me talk as her. The second I started doing that, I was like, "Oh, I know where she is."

How did drag influence your take?
Ursula is the outsider, and with so many drag queens there absolutely is that [sense of], I'm aware that I'm the outcast. I'm aware I'm not what you consider the norm. I'm embracing it. I'm putting a spotlight on it and giving it a mic. I don't have to conform to what you want.

I feel like Ursula needs her own film.
It would be riveting to reverse engineer what builds up that crusty shell. To watch [her] constantly being outed, always being wrong, you either are completely broken by it or you build up such a hard shell that no one will ever get through to you and then you're just isolated in your own prison. I think it would be unbelievably relatable. —*H. Alan Scott*

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